POLICY RESEARCH WORKING PAPER 2164

Challenging El Salvador's Rural Health Care Strategy

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Low-skilled "health promoters" posted in rural villages are doing little to improve health or health-seeking behaviors. In a supply-driven system, such workers have too few incentives, too little knowledge, and too little supervision. Results can be improved without increasing costs.

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Summary findings

Can a supply-driven network of underskilled rural health promoters make a difference in rural health care? There are few, if any, signs that the current rural health strategy in El Salvador is working, whether the health promoters are government employees or nongovernmental organization (NGO) workers.

Lewis, Eskeland, and Traa-Valerezo arrived at this conclusion after conducting interviews and analyzing primary and secondary data.

The village-based health promoters lack incentives and supervision, and ultimately have little to offer local communities. NGO workers are more successful than government workers, but neither group performs satisfactorily.

Even the rural poor use private services quite intensively, despite the high cost of the services and of getting access to them. Moreover, people seem to seek the services they need. They select self-treatment in 50 percent of illness episodes, with about the same success rate as when they use health providers.

Other options should be considered, as results can be improved without increasing costs.

This paper — a product of the Human Development Sector Units, Europe and Central Asia Region and Latin America and Caribbean Region; and Public Economics, Development Research Group — is part of a larger effort in the Bank to encourage appropriate policies and programs in the health sector. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maureen Lewis, room H7-221, telephone 202-473-9080, fax 202-522-3665, Internet address mlewis1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The other authors may be contacted at geskeland@worldbank.org or xtraavalerezo@worldbank.org. August 1999. (48 pages)

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Executive Summary

This study covers a broad range of questions of relevance to health care in rural El Salvador. While the study aimed in particular to highlight the role of health promoters (low skill village health workers), it also covers other modes of health service delivery, whether by the private sector, Non Government Organizations (NGOs) or MSPAS. It also covers attitudes, knowledge, health problems and the health seeking behavior of the population—with emphasis on women and children. Thus, the system of supply is analyzed in terms of whether its services are known, sought, valued, and effective in prevention or treatment. The study uses various data sources and analytical approaches to shed light on different dimensions of these problems. The following executive summary briefly highlights findings, including policy recommendations and questions found worthy of additional research.

Data Sources and Methodology

To measure the impact of health care services on potential beneficiaries, the following sources of information were used: (1) focus groups of women and men in 23 rural communities; (2) A survey of the 315 women participating in these focus groups; (3) interviews in these communities with government and NGO health promoters, and community leaders; and (4) data from a multipurpose national household survey (EHPM) [1]. This range of information permitted inquiry from different perspectives, and the resulting analysis takes advantage of the qualitative and quantitative nature of the data.

Health Problems

All available information points to the importance of respiratory infections, and to a lesser extent gastroenteric ailments in rural El Salvador. Over 60 percent of illness episodes are due to respiratory illness, and this incidence is higher amongst children. Apart from causing illness, gastroenteric disease and respiratory problems are important causes of mortality. High incidence of illness is most closely associated with lack of education and low incomes. The probability of respiratory infections is inversely related to education, and incidence is higher among females and the young. Among men, injuries represent only one percent of illness episodes, but claim the highest amount of restricted activity time per episode, averaging 14.5 days.

Health Care Access

Over 50 percent of the country's population resides in rural areas, where roads and other infrastructure are poorly developed. Primary care services for the rural population remained the purview of private organizations (NGOs) during the 1980s, but was

[1] Encuesta de Hogares por Propositos Multiples, from Ministry of Planning. Data from the survey's 3rd quarter, 1994 round was used due to its extensive health module.

supplemented by government health promoters starting in the early 1990s.[2] Private clinics, outpatient services, and public health centers are located in larger towns. These are accessible to rural households but entail some financial and time costs.

Knowledge of health service availability is extensive. Preventive care is readily accessible in most villages, but demand is minimal. Rural households typically visit a health facility only for serious illness. Physical access is not a big problem, with the worst-off households 12 kilometers from a health provider; poor roads, however, limit access to higher level facilities. Accessibility is constrained more by convenience (days and hours of operation, and waiting time) and quality. Cost of services was typically not identified as a deterrent to seeking service.

Health Promoters

Health promoters are meant to provide basic care to communities, with an emphasis on the health of women and children. While promoter training is standardized, NGO promoters receive more training and supervision than government promoters. Moreover, NGO promoters are trained to prescribe and have available simple medications (e.g., acetamenaphin, cough syrup) and antibiotics. The Ministry of Health & Social Welfare (MSPAS) workers often lack basic medical equipment such as a first aid kit and drugs, and are not permitted to dispense antibiotics. NGO promoters are less likely to be salaried, and where they are, tend to earn less than the one minimum salary earned by MSPAS promoters.

Communities differ in how they perceive promoters. The more remote the community the more they appreciate them. Communities in general are highly critical of the minimal services, lack of medication, and limited equipment of the MSPAS workers, and complain that they mostly bring lectures about things they cannot control (e.g., quantity and quality of water, cleanliness). Promoters typically refer patients to the closest health facility. NGO promoters are generally better equipped, more systematic in their home visits, and provide greater value for communities. In general, however, communities are aware that promoters are only equipped to deal with the most basic problems. In the case of MSPAS promoters, trust and confidence are eroded by the lack of basic inputs. The one area in which communities agreed and were consistently positive about the role of promoters (MSPAS and NGO) was regarding immunizations. In this area promoters are involved and dedicated, and government statistics confirm the effectiveness in immunizations. This study is did not identify any effect of promoters on health status or preventive behavior. These results indicate that any possible effect is zero or small. While the power of the applied quantitative tests is constrained by data, qualitative findings support this interpretation.

[2] A health promoter is a primary health care volunteer or employee, typically with 2-8 years of primary education, and 12 weeks of health training.

Health Seeking Behavior

The EHPM sample indicates that almost 70 percent of those who fall ill self-treated or did nothing, 18 percent visited a public facility, 7 percent consulted a private provider, and only 3 percent sought the advice of a paraprofessional, midwife or traditional healer. In general the rural Salvadoran population self-treats, or seeks the services of established providers. The results from the focus groups indicate that about half self-medicated, often consulting local shopkeepers who sell medication; 30 percent visited public providers, 13 percent visited private clinics, and only 7 percent and 3 percent, respectively, consulted NGO and MSPAS promoters.

For the rural sample of the EHPM, regression results indicate that the choice of whether to seek care was determined in part by age and gender, with the youngest and oldest female family members most likely to seek treatment, and those aged 20–44 least likely to do so. Income, and some measures of educational attainment are associated with seeking health care. The costs of transportation, medical consultation and medication were not found to have any effect on the decision to get health care, including the private/public decision. This is noteworthy given the cost differences in the sample. That finding, combined with utilization patterns, suggests a strong demand for private health care. Given the low incomes and availability of lower-cost alternatives, it also indicates that households differentiate across providers based on costs, their own needs, and quality factors, including access.

Treatment Success

Success at treatment is an important basis for decision making. According to the focus group survey, success was highest with health centers (88 percent) and private providers (87 percent). Lowest success was for MSPAS promoters at 57 percent, followed by NGO promoters at 72 percent. The second visit overwhelmingly favored higher level facilities such as health centers, hospitals and private clinics. Success rates on the second round favored these same providers.

Interestingly, the probability of successful treatment does not vary much across various providers, and (in multivariate analysis) is significantly higher only for private physicians and clinics. The low correlation between the type of health provider sought and the frequency of success indicates that individuals have some knowledge of the severity and treatability of their ailments, and seek more sophisticated providers (who are on average farther away and/or costlier) for more severe illnesses.

Conclusions

Respiratory disease is the most common and the most commonly treated ailment in rural El Salvador. Preventive methods, despite the efforts of health promoters, do not appear to have shifted behavior (i.e., removed cooking smoke from living quarters). Some combination of better information, higher incomes or effective government programs aimed at addressing this problem may be needed to reduce incidence.

Publicly financed health programs achieve mixed results. Higher level facilities, such as hospitals and clinics, are well regarded by the population, are used, and have a high success rate, exceeded only by private providers. The health promoter program on the other hand has at best a limited impact on health behavior in terms of prevention, and the promoter's standing in the community is uneven. MSPAS promoters are the least successful providers, not only in treatment but also in prevention.

These findings bring into question the value and cost effectiveness of public health workers deployed to rural areas with minimal training, equipment and supervision. Are there alternative means of achieving the intended results? For example, using radio (92 percent of rural households have radios) to provide preventive health messages could achieve many of the objectives of health promoters (education in areas such as basic hygiene, sources of care) at a fraction of the cost. Strengthening existing health center/hospital networks with adequate staffing and supplies could replace promoter functions in line with citizen preferences and use. And roads are critical to better access in general, and to emergency care in particular.

The reason for success among private physicians and clinics deserves additional attention and consideration. An effective approach to improve health treatment can either be exploited to a greater extent or inspire new approaches within the public sector. The private sector is sought for treatment, despite a higher cost, so the benefits are clearly perceived as higher.

The findings from this multi-tiered study suggest that further efforts to understand the perceptions, behaviors and determinants of health seeking behavior are key to guiding policy in health care decisions. Supply driven approaches cannot be guaranteed to affect desired change in preventive behavior or in health service utilization (nor in health status) unless there is an understanding of the factors underlying demand. On the demand side, low utilization as well as overuse will result in a waste of resources, and erode quality and confidence. More importantly, perhaps, is that amongst private sector providers, an unavoidable client orientation supports effectiveness. For public programs, the systems for monitoring and supervision that should support a similar discipline are typically weak, despite their essential role.

In rural El Salvador, the promoter programs, whether public or NGO, share some troubling characteristics, though the best NGO programs may appear to deliver somewhat better results. A common characteristic of these programs is that they not linked directly to the community and its needs, and this creates major challenges in incentive provision, monitoring and supervision. Given the low impact—if any—from the resources channeled through rural health promoters, it is important either to find ways to make the promoters more effective, or to seek alternatives.

Chapter I. Policy Issues, Study Objectives and Approach

The Salvadoran government spends about 2.3 percent of GNP on health and the private sector spends another 3.3 percent. While roughly in line with other countries at similar income levels, the range of health problems facing the country—both respiratory disease and diarrhea, as well as emerging diseases related to cardiovascular disease and cancers—and low per capita income (US$1,360) suggest the need to ensure that a broad range of needs are met in an affordable manner (World Bank, 1996; Lee and Bobadilla, 1994).

Policy Issues in Primary Health Care

Public health care in developing countries is two tiered. The first is a hospital and clinic network that offers subsidized services to the public on demand. The second is a supply driven primary health care (PHC) network in rural communities, using a low-skilled, labor-intensive health promoter model.[3]

While there has been dramatic growth in supply, knowledge of consumer perceptions, preferences and behaviors regarding PHC programs is virtually absent. The cost effectiveness of the PHC approach has also received little attention. How national health expenditures are allocated, how they are expended and the impact of those investments are key policy questions.

This study attempts to address a number of these issues for rural El Salvador. In particular the study explores

- the importance of health promoters in raising health awareness and status in rural communities;
- the role of public and private promoters in influencing health status and health seeking behavior;
- community and household perceptions of community health services;
- the determinants of health status;
- the patterns and determinants of health seeking behavior;
- the factors affecting successful treatment for patients.

The paper is divided into sections that explore these topics. This chapter briefly summarizes the relevant literature on health seeking behavior and it also outlines the data and methodology of the study. Chapter 2 discusses the El Salvador context and the country's health infrastructure, and Chapter 3 follows with a description of rural El Salvador's epidemiological profile and determinants of illness. Chapter 4 describes health care access and utilization, and Chapter 5 analyses patterns and determinants in health seeking behavior. Chapters 6 provides conclusions and discusses policy implications.

[3] The primary health care effort reflects the international commitment to "Health for All by the year 2000" made at the 1978 WHO Alma Ata conference. It became the basis for the proliferation of rural health services in developing countries partly financed by extensive multi-lateral and bilateral resources from the OECD.

Primary Health Care: Reaching the Rural Poor

PHC has an appeal as a low cost alternative for reaching unserved populations in developing countries with basic services, but has received virtually no evaluation (Stanton and Wouters, 1992). Opinions about the theory and purpose of PHC abound (e.g., Kloos, 1990), as do reports of primary care experiences. Indeed the literature is largely focused on fine tuning the approach (e.g., Bentley, 1989; Stone, 1992; Woelk, 1994; Zaidi, 1994), for instance by adjusting the package of services provided (Walsh and Warren, 1979, Rifkin and Gill, 1986; Walsh, 1988; World Bank, 1993). But little attention is devoted to whether the approach works to effectively deliver the package of services, whether there is effective demand for such services, and whether health improvements result. Without such analysis it is difficult to assess whether the expenditures on public services is warranted, and whether the adopted model is the most effective means of reaching the target population.

A number of studies have examined the health promoter, or community health workers (CHW). The health promoter is a minimally trained health provider health promoter who serve rural communities with a package of basic services. Issues of training (Robinson and Larsen, 1990; Korte et al., 1992), supervision (Gray et.al., 1990; Stock-Iwamoto and Rolf, 1993) and incentives facing these providers (Stock-Iwamoto and Rolf, 1993; Korte, 1993) are frequent topics in this literature. However, there is limited evidence of their effectiveness except where limitations in some aspect of the CHW program are identified (e.g., training or community participation). Gray et al.(1990) question the value of services "filtered" through village workers and show some disturbing results, but otherwise the literature merely assesses how programs could do better. The conclusions of these studies are somewhat contradictory regarding the effectiveness of health worker profiles, supervision, experience and functions. Part of the problem is the difficulty in measuring inputs and impacts, and part of this is due limitations in terms of study objectives, methodology and data.

Missing from this rich literature is any question of whether PHC makes sense, whether it is having any impact, and whether this model of health care provision can meet its objectives. Mills and Drummond (1987) come closest, in taking a critical look at the literature to determine whether governments are getting "value for money." They conclude that there are few studies of the economics of PHC delivery, but suggest that nutrition, oral rehydration therapy and immunizations constitute "good buys." Other studies identify impediments to be overcome beyond those mentioned above, such as bureaucracy (Sherraden and Wallace, 1992; Zaidi, 1994), nepotism and politics (Woelk, 1994). In all these efforts, however, PHC is implicitly assumed to be effective.

In sharp contrast to the PHC literature, a more recent set of studies has examined household behavior and decision making processes to evaluate whether public expenditures on primary health care have an impact at the household level. Some of the same measurement problems faced by the studies discussed above affect this household level research as well. Studies by Gertler and Van der Gaag (1990) for the Ivory Coast and Peru, and by Alderman and Gertler (1989) for Pakistan examine the effect of price on

service utilization with time costs factored into overall costs. An important determinant of demand for health services in these studies is quality. Quality is captured in various ways. Drug availability and number of staff were used as proxies for service quality in studies of PHC in Kenya (Mwabu et al., 1993), Ghana (Lavy and Germain, 1995), and Nigeria (Akin et al., 1995). However, the policy implications of these are not particularly helpful, particularly given the literature discussed above regarding the effectiveness of public sector staff. Lewis et al. (1991; 1996), in an examination of hospital costs and services in the Dominican Republic, suggest that staff numbers have little if anything to do with service quality.

Hence these studies, while useful in examining certain demand parameters, do not address the issue of how the service delivery system and its structure affect either demand or health status. Nor do any of the reviewed studies consider the role of household perceptions.

This study of rural El Salvador will attempt to address these gaps by examining primary health care from several perspectives. By using patient perceptions garnered from focus group meetings and supplemented by surveys, issues such as household demand and perceived effectiveness are explored. At the same time, the elusive quality measure is approached through various avenues, both qualitative and quantitative.

Data and Methodology

This study brings together different types and sources of information to evaluate health care options, consumer perceptions and patient behavior for rural El Salvador. The approach blends complementary qualitative and quantitative data for communities and households to shed light on a range of issues, including the pattern and determinants of illness, community perceptions, health seeking behavior, and the success rates of treatment. Information has been collected and assembled that sheds light on these issues from different perspectives.

Three different information sources are combined in this study: (i) an annual national multipurpose survey (EHPM); (ii) focus group surveys in 23 rural villages with 351 women, and with men in ten villages[4] and interviews with health promoters and community leaders in these villages; and (iii) a survey of the 315 women participating in the focus groups.

The strength of the EHPM data set is that it is nationally representative, with a large sample size in terms of villages, households and individuals. It provides rich socioeconomic data on households. Its weakness is its brevity on health and health services issues. In particular, the EHPM health service module contains nothing about supply and deployment of health promoters. There is therefore no indication of whether a promoter is stationed in the village, or if the household sought promoter services. The

[4] La Hachadura, Palo Grande, Punta Remedios, Belen Guijat, San Miguel, San Antonio, Nombre de Dios, El Copalio, San Felipe, and Santa Anita.

focus group and survey data from the 23 villages have corresponding weaknesses: fewer observations, sparse data on household socioeconomic status, and a less representative sample. Such data problems of large sample surveys, and of focus groups and small surveys are typical. Here the data sources are combined to draw on the strengths of these complementary data sources.

The approach and data collection of the focus groups and the accompanying survey are discussed below, followed by a brief summary of the methodologies applied in the analysis.

National Household Survey. This nationally representative survey of households, *Encuesta de Hogares de Propósitos Múltiples (EHPM)*, covers income, earnings, labor force, wealth, expenditures and selected behavioral factors. The 1994 third quarter survey includes 4,253 households. It has a module on health problems and health seeking behavior. The rural sample covers 1,759 households with an average of 5.1 individuals in each.

Focus Groups and Interviews. The objectives of the focus groups were to determine: consumers' defined needs and concerns, how services rendered by government and NGO health providers are perceived by beneficiaries, awareness of available health resource(s), deterrents to seeking particular services, motivation of patients to choose one facility over another, or one promoter over another. Women 15 years and older were selected in each community, with 10–15 women participating in each focus group; adult males who participated in separate focus groups were selected similarly.

The study also employs interviews with health promoters, whether public (MSPAS) or private (NGOs) that serve the sampled communities. Also, informal interviews with community leaders and teachers on community characteristics complemented the focus groups and provided context for exploring the role of health promoters in rural communities.

These interviews were meant to shed light on the following: (i) promoters' perceptions of health services needs in their community; (ii) self-assessment of their ability to supply those services, given their training, and the support and supplies received from their employer (MSPAS or NGO); (iii) whether there is competition and/or an overlap of activities among NGOs and MSPAS promoters; (iv) promoters' views on the quantity and quality of services they provide to their communities; (v) promoters' views on skills and training being offered by their organization, and those required by their job; and (vi) the relationship between promoter effectiveness and their characteristics (i.e. salary, benefits, experience, training, promotion). Focus groups and interviews were recorded on video and/or audio.[5]

Focus Group Survey. To complement the focus group data, a survey on health seeking behavior among the 315 women attending was conducted to gain insights into the

[5] Additional details and the survey instruents are contained in Annex 1 of the World Bank (1997).

behavior of households in times of illness. The survey explored use of specific providers, including promoters, the costs and time involved in seeking care, the success of that process, etc., and subsequent behavior when the first provider's treatment was considered unsuccessful.

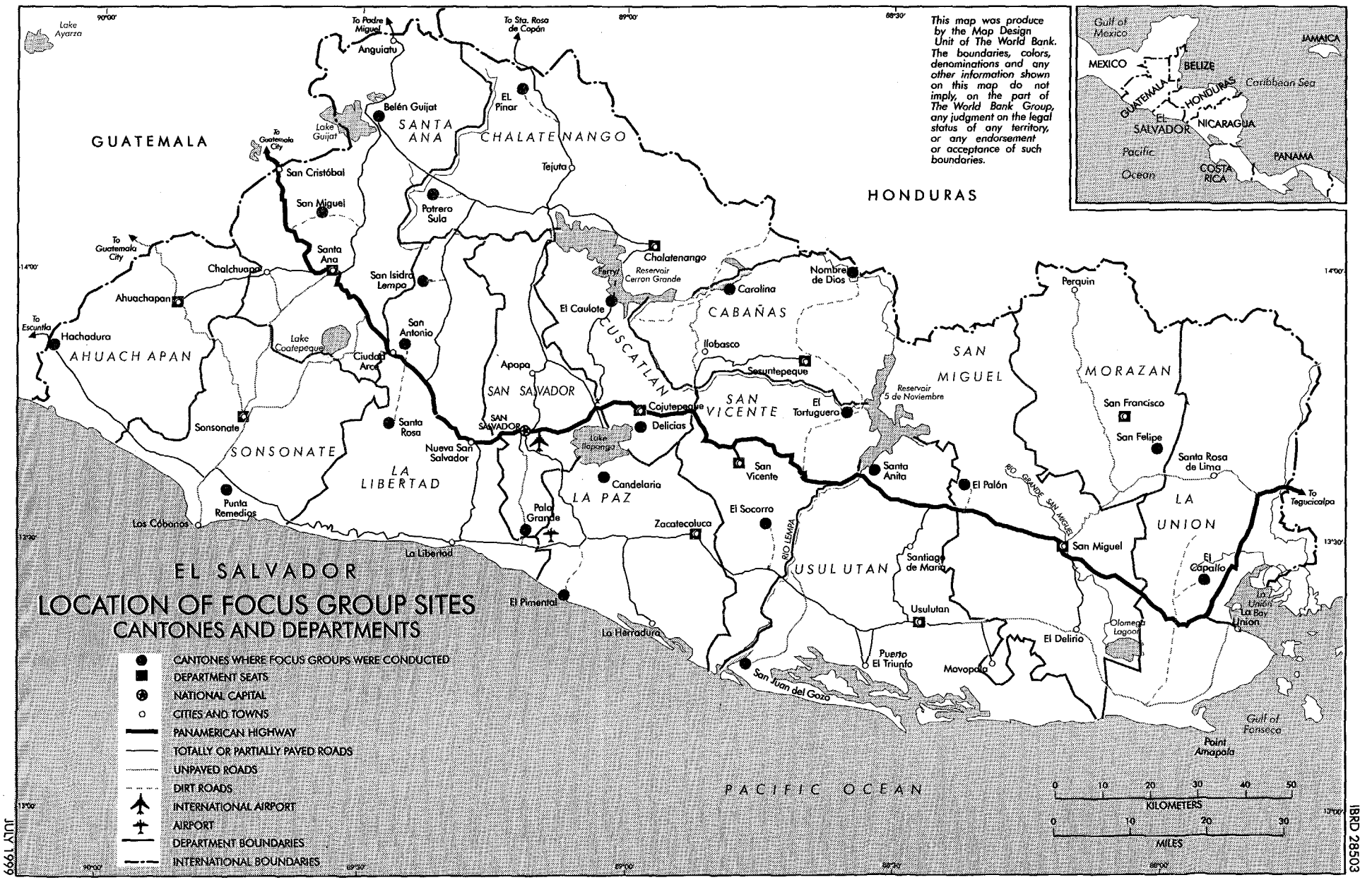
Sampling. Selection of villages for the focus groups/survey were randomly drawn from the list of villages covered by the EHPM survey, additional selections were made to include villages in underrepresented areas, and to ensure inclusion of villages with either no promoters or NGO promoters, according to existing information. The latter criterion sharply reduced the possible overlap with the EHPM data set. Of the selected 23 villages, 14 are included in the EHPM data set. Finally, due to the unreliablility of MSPAS information on promoters, of the 14 villages only one later proved not to have a health promoter (MSPAS, 1995, 1995a).[6] Figure 1.1 is a map indicating major urban centers and the location of the focus group cantons.

The selection of focus group sites was determined by: (i) selection of cantons from all 14 departments; (ii) random selection of village sites adjusted by stratified samples to ensure the appropriate prototype mix; (iii) according to prior information, a cross-section of promoter prototypes was selected: cantons with MSPAS promoters only; cantons with NGO promoters only; cantons with MSPAS and NGO promoters; and cantons with no promoters at all; (iv) twenty focus groups from each of the departments represented by 1 or 2 cantons. Focus group participants were selected randomly, with twenty invitations delivered to women, preferably mothers with small children, in the four cardinal points of the village, with five women selected from each part of the village. In addition, 5–10 men were invited from the same areas.

Methodology. The study applies all three sets of data in examining the major themes of illness patterns, perceptions and knowledge of health care options, health seeking behavior, and treatment outcomes. The qualitative and quantitative nature of the data allow examination of these issues from different perspectives. The qualitative results build on the views of the participants in the 23 communities. These are referred to in subsequent sections that explore quantitative results with econometric analysis. The community interviews provide insights into the impressions of community leaders and the behaviors of the health promoters assigned to the sampled villages.

The focus group data and the EHPM provide a descriptive profile of the households, and are applied in analyzing the determinants of illness, treatment choice and treatment success. Regression analysis is used to control for a myriad of factors and to separate out the factors that contribute to the determinants of illness, health service options selection, and service treatment success.

[6] Tables A-1.2 and A-1.3 in Annex 1 of World Bank (1997) details the 20 communities included in the final sample, and summarizes the public and NGO services available in the sampled communities.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GUATEMALA
HONDURAS
EL SALVADOR
PACIFIC OCEAN
Gulf of Mexico
Caribbean Sea
Pacific Ocean
Gulf of Fonseca
Lake Ayarza
Lake Guijat
Lake Coatepeque
Lake Ilopango
Olomega Lagoon
Reservoir Cerron Grande
Reservoir 5 de Noviembre
To Guatemala City
To Padre Miguel
To Sta. Rosa de Copán
To Escuintla
To Tegucicalpa
Anguiatu
Belén Guijat
San Cristóbal
San Miguel
Potrero Sula
Santa Ana
Chalchuapa
Ahuachapan
Hachadura
Ciudad Arce
San Isidro Lempa
San Antonio
Tejuta
EL Pinar
Chalatenango
El Caulote
Carolina
Nombre de Dios
Ilobasco
Sesuntepeque
El Tortuguero
Cojutepeque
Delicias
Apopa
SAN SALVADOR
Nueva San Salvador
Santa Rosa
Sonsonate
Punta Remedios
Los Cóbanos
La Libertad
El Pimentel
La Herradura
Candelaria
Palo Grande
Zacatecoluca
San Vicente
El Socorro
Santa Anita
El Palón
Río Grande San Miguel
Río Lempa
Santiago de María
Usulutan
Puerto El Triunfo
San Juan del Gozo
Mavopala
El Delirio
Perquin
San Francisco
San Felipe
Santa Rosa de Lima
El Carpio
La Unión
La Bay Union
Point Amapala
AHUACH APAN
SONSONATE
LA LIBERTAD
SANTA ANA
CHALATENANGO
CUSCATLAN
CABAÑAS
SAN SALVADOR
SAN VICENTE
LA PAZ
USUL UTAN
SAN MIGUEL
MORAZAN
LA UNION
JAMAICA
MEXICO
BELIZE
GUATEMALA
HONDURAS
EL SALVADOR
NICARAGUA
COSTA RICA
PANAMA
LOCATION OF FOCUS GROUP SITES
CANTONES AND DEPARTMENTS
CANTONES WHERE FOCUS GROUPS WERE CONDUCTED
DEPARTMENT SEATS
NATIONAL CAPITAL
CITIES AND TOWNS
PANAMERICAN HIGHWAY
TOTALLY OR PARTIALLY PAVED ROADS
UNPAVED ROADS
DIRT ROADS
INTERNATIONAL AIRPORT
AIRPORT
DEPARTMENT BOUNDARIES
INTERNATIONAL BOUNDARIES
0 10 20 30 40 50
KILOMETERS
0 10 20 30
MILES
90°00'
89°30'
89°00'
88°30'
14°00'
13°30'
13°00'
JULY 1999
IBRD 28503

Chapter II. Community Characteristics and Health Services Supply

This chapter provides an overview of rural El Salvador and its health system. It begins with an introduction to socioeconomic indicators for El Salvador and is followed by the characteristics of rural areas, drawing on both the national rural sample of the EHPM and on the data collected from the surveys conducted in selected rural areas. The final section focuses on the health service system, including an examination of health promoters. Together these provide the context for the subsequent analysis.

El Salvador ended a 12-year civil war in 1992. During the civil war, certain areas of the country were cut off from government control and services, and some were severely damaged. Since 1992, economic growth has averaged around 6.5 percent, and 1994 GDP per capita was at $1,360. While El Salvador has produced solid economic progress, social indicators are lagging. Population increases are around 2.2 percent per year, well above the 1.4 percent of countries at similar income levels; infant mortality is 42 per 1000 live births, and malnutrition of children under 5 is about 22 percent, all indicators of poor health and poverty. School enrollment at 79 percent of the school aged cohort is behind the 103 percent average for lower-middle income countries (WDR, 1996).

What these statistics do not convey, are the dramatic policy reforms of recent years. These stress opening of the economy, improving competitiveness, rising educational investments, and strengthening public sector management. There have been significant strides in these areas, and these are expected to have a beneficial effect on incomes and health status over the medium term. There is an anticipated gap, however, between urban and rural El Salvador.

A recent analysis examining the use of basic services in rural El Salvador using the 1994 EHPM and a 1996 rural survey of 738 households points to poor educational attainment and schooling attendance, and identifies inadequate infrastructure among the rural poor as major constraints to economic growth and well-being (Castro-Leal and Mehra, 1996).[7] Table 2.1 summarizes results from the EHPM for infrastructure access, specifically for piped water, modern sanitation and electricity. Rural areas and the poor are underserved for these three services. However, the discrepancies are greater between rural and urban than between poor and non-poor. Missing from this list, but key for rural populations, are roads. The lack of roads is partly a legacy of the deterioration and destruction of infrastructure during the civil war (infrastructure is in the worst condition in areas that experienced the most intense conflict, Castro-Leal and Mehra, 1996). These issues are addressed below from the perspective of the sampled rural communities.

The other sector that has a strong bearing on health status and health behavior is education. Also, income growth contributes to health both directly and through its effect on educational attainment and behavior. By Latin American standards, El Salvador's

[7] The study also points to the lack of targeting in health care, given the cost structure of health care and the resulting need to concentrate services in densely populated areas. The issue is addressed later in this paper.

educational attainment levels are low. The literacy level is low nationally, but for the rural population it is estimated to be 25 percent for those over age 10 (EHPM, 1994), in part because schools compete with parents for children's time. Boys are kept home to work in the fields, and girls to do housework and baby-sit for younger siblings. Thus, demand for education is limited, and this was confirmed in the focus groups (see below). Some of this may be due to a perception of low returns for the investment in schooling.

Table 2.1 Access to Public Services by Area of Residence, 1994 (percentage of households)

Area of residence	*Access to piped water*[a]		*Access to Modern sanitation*[b]		*Access to Electricity*	
	Poor	*Non-Poor*	*Poor*	*Non-Poor*	*Poor*	*Non-Poor*
Rural	14	28	2	8	35	61
Other Urban	35	69	15	53	77	95
San Salvador	44	87	41	82	80	98
El Salvador	20	65	7	53	46	87

a. Piped water is either inside or outside the home or piped to a common neighborhood faucet.
b. Modern sanitation is private or shared toilet connected either to public sewerage or to a septic tank.
Source: EHPM (1994-III) from Castro Leal and Mehra (1996).

Characteristics of Sampled Rural Communities

The characteristics of the sampled communities are summarized in Table 2.2 for location, demographic data and employment and in Figure 2.1 for wealth and service access. The location of the communities is indicated in the map in Figure 1.1. Where possible, the Focus Group data and the EHPM results are compared.

The vast majority of households are engaged in subsistence agriculture, with a few in trade, fishing or cattle raising, making any accurate estimate of income difficult. Hence a reported estimate is provided, but durable goods ownership and other indirect measures such as floor composition are used to capture income averages and differences across the region. Women are largely housewives, with a range of responsibilities that leave little time for outside employment; a few engage in selling food, both raw and prepared. Family size suggests that households generally have four or five children on average, in keeping with the high fertility rates observed in rural areas. This is above the rural EHPM average family size of 5.1.

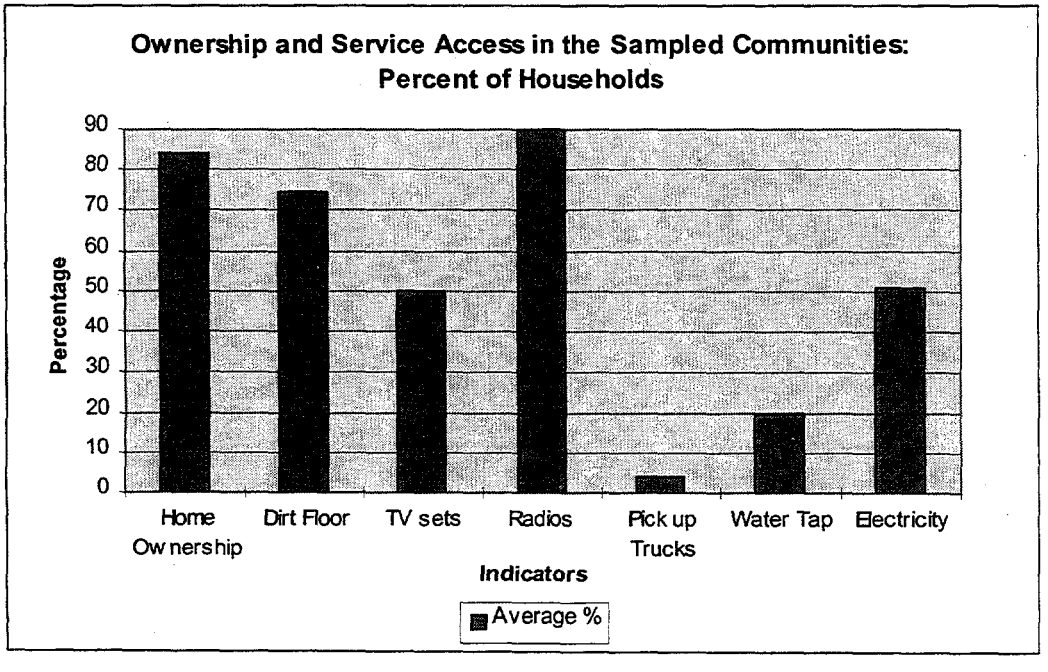
Ownership of home and its composition, and ownership of durable goods and transport reflect household wealth. Almost 85 percent own their homes, although three quarters of homes have dirt floors (indicating a very basic standard); the EHPM, in comparison, reports 63 percent home ownership. Commensurate with other findings and with the epidemiological profile, water taps are rare; this is also consistent with the EHPM that showed 19 percent of homes with piped water. About half of households have electricity—in the EHPM it was 45 percent, and 50 percent have TV sets, and 90 percent have radios.

Table 2.2 Community Profile: Demographics, Location, and Income

Canton	*Population*	*Number of households*	*Average household size*	*Distance to San Salvador (km)*	*Average family income (colones/ month)*	*Person residing abroad*
LA HACHADURA	4,400	1,500	3.0	132	2,000.0	100
BELEN GUIJAT	1,675	335	5.0	90	550.0	330
SAN MIGUEL	2,360	470	5.0	97	400.0	120
PUNTA REMEDIOS	4,600	900	5.1	108	350.0	25
EL PINAR	800	150	5.3	88	500.0	5
POTRERO SULA	10,000	2,000	5.0	78	800.0	1,000
SN. ANTONIO	2,900	415	6.0	69	400.0	30
SN. ISIDRO LEMPA	4,000	300	13.0	48	1,000.0	25
SANTA ROSA		800				
PALO GRANDE	1,100	160	6.9	25	300.0	30
EL CAULOTE	1,200	200	6.0	33	500.0	5
LAS DELICIAS						
CANDELARIA	2,100	300	7.0	24	600.0	3
EL PIMENTAL	1,800	300	6.0	25	200.0	10
NOMBRE DE DIOS	2,800	400	7.0	105	1,200.0	320
CAROLINA		450				4
EL TORTUGUERO	590	104	5.7	90	300.0	15
EL SOCORRO	180	30	6.0	150	300.0	0
SANTA ANITA	2,620	436	6.0	99	500.0	100
SAN JUAN DEL GOZO	1,200	200	6.0		300.0	10
EL PALON	3,500	500	7.0	105	500.0	40
SAN FELIPE	570	115	5.0	160	200.0	15
EL COPALIO	2,800	400	7.0	N/A.	650.0	20
AVERAGE	2,560	476	6.15		84.78	

Note: In the study period, eight colones was about one U.S. dollar.
Source: Community Leader Interviews on Community Characteristics.

Figure 2.1



Between access to electricity and TVs there is a strong correlation, but the data also show that some communities without electricity have TVs (and radios) as households use car batteries. The demand for these durables is clear, and coverage by radio is particularly impressive; virtually every household has one. Finally, fewer than 5 percent own a pick-up truck, and cars are fewer. This reflects limited incomes, but may also be associated with the lack of adequate roads, an issue raised in all the focus groups in each of the villages.

For schooling, the maximum grade available in nine of the 23 sampled communities was 8th or 9th grade, between 4th and 7th in four, and in the remaining eight communities only 3 grades were available. With the exception of teachers, the average grade completed for the 315 women in the focus groups is 2.4, which is comparable to the 2.6 years reported in the rural EHPM sample. The new educational system set up by the Escuelas Comunitarias with EDUCO teachers under a World Bank loan have been enthusiastically embraced by all rural communities interviewed.

The data from the EHPM and the focus group survey suggests general comparability, with the biggest difference in home ownership (63 percent versus 84 percent reported by community leaders), and household size (5.1 and 6.2 reported by survey respondents). Some of this may be attributable to the fact that the EHPM used household interviews to collect the information, and the Focus Group sample relied on community leaders to estimate coverage and size. Moreover, the Focus Group sample started with mothers and was not necessarily representative of households, and is also a very small sample when compared to the EHPM.

Salvadoran Health Sector

The comprehensive USAID-coordinated, multi-donor study of the health sector, *Análisis del Sector Salud de El Salvador* ("Analysis of the Health Sector in El Salvador" or ANSAL) contains a thorough assessment of the health sector, and examines various aspects of it in some depth. It provides an excellent review of the sector (Fiedler et al., 1993), its epidemiology (Ayalde, 1994), public infrastructure (Zúniga, 1994), financing (Fiedler, 1994), and community perceptions of health and access to services (Kolodin, 1994), among other topics. In addition, Bitran (1990) and Gómez (1989) studied the demand for health services analyzing expenditures and patient health-seeking behavior. Together these provide a solid snapshot of health in the country, and aside from the demand study, are recent, post-war assessments.

The ANSAL findings suggest that El Salvador is recovering from roughly 15 years of neglect of its health system. The country presents a complex epidemiological profile, and has an inefficient health care delivery and financing system. Epidemiologically, upper respiratory infections (URI), diarrhea, and malnutrition figure prominently, especially in the low income rural areas that encompass about two-thirds of the population (see Chapter 3 for more on illness profile). At the same time, the growth in behaviorally based diseases of adults is accelerating in urban centers. The country has also had to cope with recent epidemics of cholera and dengue. Public capacity is weak and both systemic and disease-

specific programs have suffered as a result. One notable bright spot is immunizations, where coverage is high by Latin American standards.

Health care is provided through the Ministry of Health and Social Assistance (MSPAS), the Salvadoran Social Security Institute (ISSS) and the private sector, which includes NGOs. Public expenditures account for less than half of all health spending. The network of MSPAS facilities constitute close to two-thirds of the sector's facilities, and technically serves the entire population. ISSS services are accessible to those covered by social security, roughly 15 percent of the population. The private sector is very active, with a good proportion of basic, rural care provided through NGOs.

During the civil war, rural health care in El Salvador was largely the purview of NGOs, both international and domestic, with networks of clinics, community health promoters and a few hospitals. Since 1990, however, there has been a significant investment in a public network of health promoters. These low-skilled workers (typically with 4 years of primary education and 12 weeks of health training) provide basic preventive and treatment services in their communities. The national system of hospitals, clinics, health units and health posts has been revived and in some cases upgraded and expanded since 1990, and provides medical back up for the rural health promoters.

The public health care delivery infrastructure is of an early vintage, and aside from some major reconstruction efforts, suffers from low investment since the early 1980s. For the rural areas, the NGOs and MSPAS services are most relevant, although the fixed facilities in smaller towns are accessible and used by poor rural households, as will be discussed below. There are 396 MSPAS facilities: health posts, health units, health centers, and hospitals distributed throughout the 14 Departments (MSPAS, 1996). The characteristics of the MSPAS facilities are shown in Table 2.3.

The private sector is growing in El Salvador. Private physicians and clinics are flourishing in the cities and major towns, and health insurance, currently covering about 2 percent of the population, is expanding as well (Fiedler, 1994; Iunes, 1994). In 1994 there were 37 private hospitals with 10 to 128 beds, with a total of over 1,000 beds, largely concentrated in San Salvador. Clinics offer a range of diagnostic services. Private laboratories and a large number of private pharmacies can be found in all areas of the country (Iunes, 1994; Fiedler, 1994).

NGO services, while extensive, are more fragmented and less uniform.[8] As will be discussed below, NGOs support broad health promoter networks in some parts of the country, but no consolidated information is available on this and there is no standard approach. Coverage by both NGO and MSPAS health promoter programs does not appear

[8] Each health NGO also has other community goals. AGAPE, ASALDI, ASPAS, KNAPP, ASIPES, VISION MUNDIAL, FUNDEMUN focus on preventive care and treatment of mothers and children aged 0-5. Other NGOs deal almost exclusively with gender issues and intra-family violence, while others have god-fathering programs to raise children outside poverty (CONAMUS, VISION MUNDIAL and PLAN PADRINO). Many NGOs also have an environmental objective.

to follow any particular strategy, although the Focus Group Survey suggest that NGOs are in lower income communities than MSPAS.

Table 2.3 Public Health Facilities, Characteristics and Staffing, 1995

Facility	*Services provided*	*Staffing*	*Types of care*
Health post (Puesto)	• Basic preventive and treatment • Immunizations • Mother-child care • Pre/post natal care • Family planning • Health education • Oral rehydration • Pelvic exams • Midwife Program.	• 1 Family Physician *(Año social)* • 1 Nurse • 1 Nurse assistant • 1 Health inspector	• Inpatient: None • Outpatient: twice a week
Health unit (Unidad)	• All services offered by Puesto plus: • Dental treatment • TB treatment • Laboratory[1/]	• All of the above plus: • 1 Dentist[a] • 1 Health Inspector • Specialists when needed	• Inpatient: None • Outpatient: 5 days a week
Health center (Centro)	• All of the above plus: • General and special consultation in: • Physiotherapy • Pediatrics • Gynecology • Clinical laboratory • Social Work	• All of the above plus: • Physiotherapist • Lab technician • Gynecologist • Social worker • Pediatrician • Gynecologist • Dermatologist • Other specialists when needed	• Inpatient: 100 beds on average; 7 days a week • Outpatient: 5 days a week
Hospital	• All secondary care	• All the above plus: • Specialist in internal medicine • Surgery • Operating theater	• Inpatient: 125+ beds; open 7 days a week • Outpatient: 5 days a week

a. In larger health units.
Source: MSPAS (1995a).

Characteristics of MSPAS and NGO Promoters [9]

This section discusses health promoters, their responsibilities, and availability to their communities. Because of their complementarity, the Ministry of Health and NGO

[9] There have been two major trends in deployment of health promoters. Starting in 1976, *Ayudantes Rurales de Salud* (Rural Health Aides) were community leaders assigned by the community to support rural health in a general assembly. In 1982, the *Ayudantes Comunitarios* (Community Aides) Program emerged with social workers and academic degrees in health as promoters. In 1983, HOPE and UNICEF established *Ayudantes Comunitarios* Programs. Competition among these 3 groups led MSPAS to institutionalize the *Promotor de Salud Comunitaria* (Community Health Promoters) in 1989, and to hire its own public promoters. The end of the war also made such a program possible.

promoters are assessed jointly. In 1995, in the 2,564 cantons of El Salvador, there were 1,438 MSPAS community health promoters. An estimated 2,458 NGO promoters are active, but the data are unreliable.[10]

The characteristics and practices of public and private promoters were obtained through interviews with promoters in the sampled villages and are summarized in Table 2.4. In the sampled communities, about half the promoters are female (nationally it is about two thirds of all promoters). The promoters have about 7 or 8 years of schooling, live in the community and are full time workers. MSPAS and NGO promoters target women of child-bearing age and children aged 0–5.[11] Their primary duty is preventive education; they participate in immunization campaigns coordinated by MSPAS and all non-volunteer promoters refer patients to MSPAS or NGO facilities.

Promoter training is highly standardized. MSPAS conducts a 12-week Basic Accreditation Program for all promoters. At best, one day of training per month for the subsequent three months in a MSPAS facility or in San Salvador occurs, but there is no consistent continuing education or supervision for public promoters. NGO promoters receive the standard 12-week Basic Accreditation Program training, but are provided periodical training in areas of specialization. For example, basic training for ADS family planning promoters lasts two weeks; AGAPE's training eight weeks, one or two days bimonthly for KNAPP, and one to two weeks per month for CONAMUS.[12] Interviews with NGO promoters indicate that frequent training is the single biggest productivity booster and incentive among promoters. In their words, *"training empowers us to perform better and to follow our commitment to the community".*

At the end of the Basic Training Program, all promoters receive a certificate and the Health Promoter's Manual (*Manual del Promotor de Salud)*, to be used as reference thereafter (MSPAS, 1992). Most promoters in the field have it. The guidelines state that the promoter is responsible for promotion, prevention, treatment and environmental sanitation in seven areas: child health, reproductive health, dental health, basic health assistance, first aid, basic sanitation, and, health education. The manual designates the following activities to the promoter: (1) prevention, assistance and referral in cases of ADI (acute diarrhea infection); (2) prevention, assistance and referral of ARI (acute respiratory infection); (3) promotion, detection and referral of pregnancies; (4) promotion of post-natal care and newborn care; (5) promotion and assistance in family planning; (6) promotion of child growth and development; and (7) promotion and assistance in basic sanitation programs.

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[10] A recent MSPAS publication suggests there are 247 NGOs, while the official list of NGOs providing services is 172.

[11] According to MIPLAN (1994), 27 percent of the population of El Salvador are women in child-bearing age and 38 percent children 15 years old and younger.

[12] COSDECSAM's initial training in natural medicine is 3 months over three consecutive years, followed by maintenance training 1 day per month.

Table 2.4 Profile of the Promoters in Sampled Communities

Canton	*Affiliation*	*Gender*	*Age*	*Grade Completed*	*Salary/Benefits (colones per month)*
Communities with MSPAS Promoter Only					
El Pimentel	MSPAS[a]				c/2,365 + public sector benefits
Nombre de Dios	MSPAS[a]				c/2,365 + public sector benefits
El Tortuguero	MSPAS	M	30	4th	c/2,365 + public sector benefits
Santa Anita	MSPAS[a]				c/2,365 + public sector benefits
Carolina	MSPAS[a]				c/2,365 + public sector benefits
Communities with MSPAS and NGO Promoter					
Belen Guijat	MSPAS	M	27	8th	c/2,365 + public sector benefits
	ADS	F	28	5th	None
Potrero Sula	MSPAS	F	29	10th	c/2,365 + public sector benefits
	CONAMUS	F	22	10th	c/2,000
	World Vision	M	25	7th	
	ADS[b]				c/650
San Isidro Lempa	MSPAS	F	28	6th	c/2,365 + public sector benefits
	ASALDI-1	F	23	10th	c/2,000+uniforms+shoes, + annual & sick leave + *aguinaldo*[c]
	ASALDI-2	F	25	9th	Same as above
	CSI	F	31	7th	None
	ADS[b]				
Palo Grande	MSPAS	M	41	6th	c/2,365 + public sector benefits
	ADS[b]				
San Antonio	MSPAS	M			c/2,365 + public sector benefits
	CAPS[a]				
	ADS[b]				
San Juan del	MSPAS[a]	M	30		c/2,365 + public sector benefits
Gozo	ASPS	M	41	9th	c/1,600 + social security
El Palon	MSPAS[a]				c/2,365 + public sector benefits
	FUNDEMUN	F	21	9th	c/1,000
El Copalio	MSPAS[a]				c/2,365 + public sector benefits
	COSDECSAM	M	41	6th	Earns commissions
Santa Rosa	MSPAS[a]				c/2,365 + public sector benefits
	ASALDI	F	42		c/2,000 + benefits
	World Vision[a]				
Communities with NGO Promoter Only					
Punta Remedios	AGAPE[d]	M	52	6th	c/2,100
	ADS[b]				
El Pinar	KNAPP	F	22	10th	c/2,180+annual leave + *aguinaldo* c/
El Caulote	PROGRESO	F	40	Night literacy	c/370
Candelaria	CARITAS[a]				
El Socorro	PRO-VIDA[a]				
Las Delicias	ASIPES	M	25	14th	c/2,000
Communities with No Promoters					
La Hachadura					
San Miguel					
San Felipe					

a. Promoter serves the canton, but did not participate in the interviews with promoters.
b. Only sells oral contraceptives with a modest commission.
c. *Aguinaldo* is a "13th monthly salary" paid to workers in December.
d. There are three AGAPE promoters in Punta Remedios.
Source: Interviews with Promoters (1996).

Health promoters are expected to be community leaders and to hold periodic meetings with the community. Among the best, "risk and resource maps" are drawn and updated regularly, helping them identify and prioritize needs and determine avenues for dealing with problems. MSPAS workers are expected to visit low-risk homes once a month, and high-risk homes every two weeks, 8 to 12 households daily. Visits reported by mothers range from once or twice a month (AGAPE, ASALDI), to once a month (KNAPP, PROGRESO, FUNDEMUN, ASPS), to once every 1 1/2 months (ASIPES), to visits on request (PRO-VIDA, CONAMUS, VISION MUNDIAL, COSDECSAM).

MSPAS promoters focus on health care promotion and education through "chats" mostly on hygiene. They check records on immunizations, well-baby care, pre/post natal care; and, follow-up health facility consultations. NGO providers offer, in addition to these functions, pre and post-natal care, well-baby care, antibiotic treatment for acute respiratory infection (ARI) and enteric diarrhea infection (EDI), and supply contraceptives.

MSPAS promoters indicate that they have inadequate equipment (first aid kit, stethoscope, measuring tape, thermometer) and medication (missing is, at least, ORS, acetaminophen, analgesics, and parasite pills). Some admit they have nothing to offer other than a referral. NGO promoters (ASALDI, AGAPE, ASPS, ASIPES, CAPS) usually carry or at least have in their home/office: stethoscope, tensiometer, first aid kit, acetaminophen, antibiotics—Amoxicillin, Bactrim, Salbutanol—prenatal vitamins, iron supplement, thermometer, adult and baby scale. These basic complementary inputs, that give NGO promoters credibility and something to offer their patients other than admonishments, are typically not available to MSPAS promoters.

MSPAS promoters typically receive a monthly salary of c/2,365 (US$272), plus health insurance and other public employee benefits. Only the best paid NGO promoters from the sample (KNAPP, AGAPE AND ASALDI) reach or exceed an MSPAS promoter's salary, but some NGOs offer attractive benefits.[13] ADS promoters, who work out of their homes earn sales commissions on family planning products, charge about c/3.00–3.50 for a cycle of pills, and c/15.00 for Depo Provera shots. The NGO supplies them with birth control pills and shots at wholesale prices (c/2.00, and c/10, respectively). PRO-VIDA promoters also earn sales commissions on contraceptives.

According to the four MSPAS promoters interviewed, they are supervised monthly by a designated supervisor (*supervisor específico*) usually at the promoter's assigned health facility. During the meeting of supervisor and 8–12 promoters, the supervisor checks monthly household coverage, gets an update on high risk cases, and approves the work plan for the following month. The meeting takes about two hours. In contrast, from the 20 NGO promoters in the sample, supervision occurs anywhere between once a week and once a month. NGO supervisors are generally a physician or a nurse, and supervision occurs in the community where they work, or directly in the field.

[13] For example, an ASALDI promoter earns thirteen salaries of c/2,000, plus the Christmas bonus of c/666, uniforms, shoes, 10 paid days of annual leave and 1 to 2 days of sick leave per year. This however, is an exception.

MSPAS promoters do not charge for visits or medication. NGOs have traditionally not charged fees, however there is growing realization that fees are key to maintaining NGO viability, as foreign financing is declining with the end of the civil war. Most NGOs now charge nominal fees for visits, medication or both (typically c/2–5). Credit is extended for delayed payment, or payment is simply waived at the discretion of the promoter. Interviews suggest that cost recovery is a new and important issue for NGO promoters.

Summary

This overview suggests that poverty is a reality in much of rural El Salvador, and many have minimal access to infrastructure. There are low levels of educational attainment but relatively good access to information through media. Health care supply exists in rural El Salvador, both public and private. Basic health care is available to some communities through clinics and the services of minimally trained health promoters. The health promoter programs are well established with a systematic classification and training program for both government and NGO workers. These are the "front line" workers who deliver primary health care services to the community, and are ultimately meant to both improve health service access and lower costs.

Government and NGO programs appear to overlap and have similar objectives. The most striking difference is the availability of complementary inputs among NGO promoters, and the greater compensation of MSPAS promoters. These issues are discussed further below.

Morbidity in Rural Areas

This chapter focuses on general health status, illness profile and determinants of illness in rural El Salvador.

First, in terms of a general indicator such as infant mortality, El Salvador is more or less in line with other countries in the region, as the summary measure indicates in Table 3.1. The big difference, not surprisingly, is with North America, where incomes, public budgets, and the standards of housing, education and infrastructure are much higher. While El Salvador has made important improvements in reducing infant mortality—declining from 99 per thousand in 1970–75 to 60 in 1985–90—the country continues to lag behind Latin America. Total fertility rates have also declined, falling from 4.5 to 3.9 nationally, and from 5.8 to 5.0 in rural areas during 1985–93 (Ayalde, 1994).

Table 3.1 Trends in Infant Mortality Rates across the Americas

Country/Region	*1950–1955*	*1970–1975*	*1985–1990*	*1995*
El Salvador	151	99	60	36
Latin America	127	82	55	33
English-Speaking Caribbean	83	40	21	
U.S. and Canada	29	18	10	8

Source: Ayalde, 1994, drawing on PAHO (1990); WDR (1995).

Table 3.2 reports primary cause of deaths for children under age four. Deaths are distributed about equally between diarrhea/dehydration (similar to the EHPM category of stomach-problems) and acute respiratory infection (similar to the EHPM category of respiratory illness.

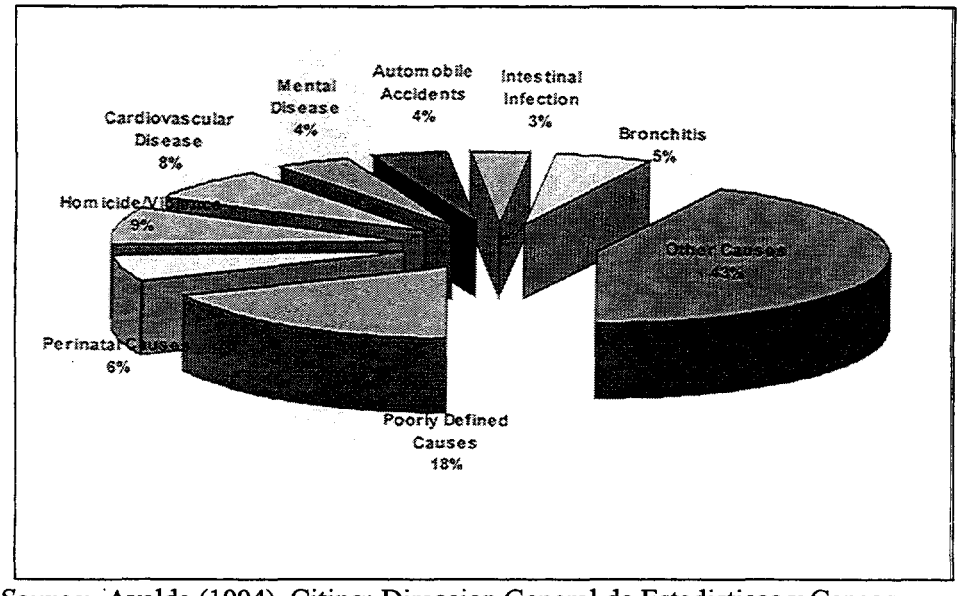
Table 3.2 Distribution of Deaths among Children under Four Years by Cause, 1993

Primary Cause	*0–11 Months (%)*	*1–4 Years (%)*
Diarrhea/Dehydration	20.0	24.1
Acute respiratory infection	16.3	27.8
Prematurity/low birth weight	18.1	0.0
Congenital abnormalities	11.3	1.9
Birth trauma	9.5	0.0

Source: Ayalde (1994), based on FESAL (1993).

From Table 3.2, the dominance of underweight births and deaths from respiratory or stomach-related problems is evident. The frequency of these problems is related to low household incomes and education, associated factors such as nutrition, quality of housing, water and sanitation and perhaps to weak preventive health measures such as prenatal care. Low incomes and education affect illness indirectly, as both are associated with poor nutrition of mother and child, exposure to dust, smoke and contagion in low quality, crowded housing, and limited access to safe water and basic sanitation. Despite the high incidence of diseases related to water, sanitation and hygiene (including a cholera epidemic in the early 1990s), Fiedler (1993) reports that considerable progress has been made in controlling infant and child mortality and morbidity.

Figure 3.1 Ten Principal Causes of Death in El Salvador, 1991

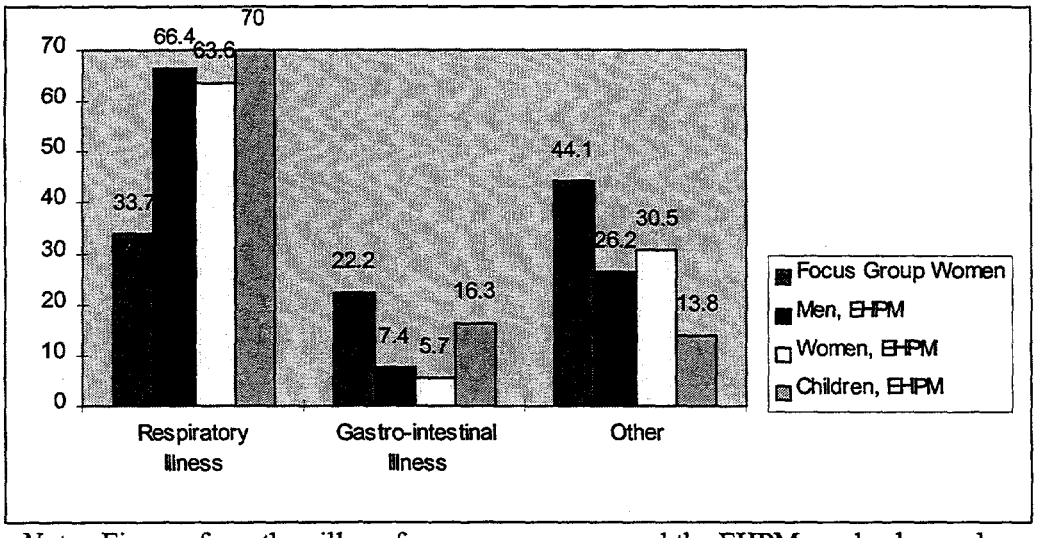


Source: Ayalde (1994), Citing: Direccion General de Estadisticas y Censos. "Memoria", MSPAS (1992–93).

Figure 3.1 shifts the focus from child mortality to causes of death for the population as a whole. The importance of trauma deaths (violence and automobile accidents, 13 percent) in El Salvador is noteworthy, although this is consistent with the violence documented in the country. The figure also shows that pneumonia and bronchitis (5.1 percent) and intestinal infections (3.4 percent) are important also for the population as a whole—not only for infants—as are heart failure and cardiovascular disease (7.6 percent).

Figure 3.2 shows illness by cause in the two data sources used in this study: the village focus group survey and the rural subsample of EHPM. In the village focus group survey, responding women report on the latest illness in the household. In EHPM, the report is on all illness incidents in the household, with a 30-day recall period. In the village focus group survey, the reported health problems are bronchitis, pneumonia, and asthma (15.2 percent) and cough (28.5 percent), totaling 37 percent of all illnesses. These illnesses can be viral or bacterial, with the latter treatable with antibiotics. However, income, lifestyle and education play a role, and susceptibility is likely to be associated with a set of factors in the home: cramped living conditions, trapped smoke from cooking fires, poor ventilation and dust from heaps of drying corn cobs. Acute respiratory infections (ARI) is responsible for about 65 percent of morbidity among children and adults (EHPM, 1994).

Figure 3.2 Distribution of Illness Incidence in Rural Households From Focus Group Survey and EHPM



Note: Figures from the village focus group survey and the EHPM rural subsample are not strictly comparable given differences in sample and the phrasing of questions.

Diarrhea was reported by 13 percent of the women surveyed, and stomach ache and vomiting by 9.3 percent, gastrointestinal symptoms constituted 22.2 percent of illness cases, mostly among young children and women. Women commonly suffer from what could be stress-related problems such as ulcers, colitis, gastrointestinal diseases and headaches. The health problems reported for children (largely upper respiratory infections and diarrhea) are directly related to living conditions: inadequately ventilated rooms, poor water supply, hygiene and sanitation (Focus Group Survey).

The third most common problem in the sampled communities is skin rashes, with 5 percent of all reported illness. Skin rashes are typically associated with poor personal hygiene and inadequate access to water. The remaining 21 percent of disease includes all other problems: injuries from violence and accidents, heart problems, cancer and kidney infections. For treatment of many of these problems, assistance by specialists is required.

In the rural subsample of the EHPM survey, respondents are asked about illness episodes of individuals in the household over the last 30 days. Figure 3.2 shows that the overwhelming majority of these incidences are due to respiratory ailments. For men, women and children alike, about two thirds of illness episodes were due to respiratory problems. Stomach related disorders are also of importance, causing 16 percent of illness episodes for children, and six to seven percent for women and men. For gastrointestinal illness, children are ill more than *twice* as frequently as adults.

In terms of their impact on activities of household members, the picture of illness is modified somewhat. The EHPM survey recorded the number of days of reduced activity caused by each illness episode. This can provide an indicator of average illness severity. Table 3.3 shows that an episode of 'respiratory illness' costs the fewest days of reduced

activity: 1.2 days per episode as opposed to 1.8 days for an average across all types of illness. Gastrointestinal problems result in 1.5 to 1.9 days of reduced activity for both adults and children. For 'all cause' illness episodes, men report an average of 2.3 days, while for women and children the corresponding number is 1.7 and 1.4, respectively (it should be noted that these groups may *report* illness episodes differently, due to variations in activity patterns). Much of this difference is due to the fact that men are more likely to sustain injuries than are women, and men's injuries typically result in two weeks of reduced activity.

Table 3.3 Days of Reduced Activity per Illness Episode

Type of Disease	*Men*	*Women*	*Children*	*Total sample*
Upper Respiratory Infection (URI)	1.4	1.4	0.7	1.2
Gastrointestinal Illness	1.9	1.6	1.5	1.7
Injury	14.5	0.0	7.5	11.3
Other	4.0	2.3	3.7	3.1
Average	2.3	1.7	1.4	1.8

Source: EHPM, 1994.

If these various indicators for children are combined, respiratory illness episodes are about four times as frequent as gastrointestinal episodes, and somewhat less serious *on average* if measured by the reduced activity days (1.2 as opposed to 1.7). However, when the number of deaths due to gastrointestinal problems are about the same as the number of deaths due to respiratory illness (see Table 3.2), then a higher share of the former are potentially life-threatening for children (about four times as many, assuming the figures are comparable). Thus, if severity of episodes were to reflect the risk of death, gastrointestinal disease is much more severe than respiratory disease.

Combining this information with the information above, and in Section II on community characteristics, it can be tentatively concluded that the picture of illness contains many elements that are preventable. Diseases related to the quality and quantity of housing and availability of water and sanitation are prevalent. This points to income and education as important illness determinants, but also, possibly to preventive care and treatment.

In order to analyze further the underlying causes of illness, logistic regression was applied to the EHPM rural data. The summary findings are presented in Table 3.4. There are two models for the determinants of an individual's being sick, and two for respiratory disease.

Women and children have the highest likelihood of being ill and, also of having a respiratory illness. The relationship between age and illness is pronounced and always significant. Education is also inversely related to the probability of being ill and of having a respiratory infection. The educational attainment of the prominent woman in the household has no bearing on morbidity incidence or on the contraction of a common ailment like respiratory disease. In contrast, the education of the household head is generally associated with being sick, but is particularly strongly related to not having had

a respiratory illness. This counter intuitive result is believed to reflect spurious correlation, probably due to the greater tendency of the educated parents to consider and report an episode as illness.

Income proxies—durable goods ownership and total monthly expenditures per capita[14]—show a significant, expected negative sign, indicating that higher incomes reduce the probability of being sick. Other suspected factors, such as water taps (as opposed to obtaining water from a river, well, truck or public source) and sanitation (private toilet versus public toilet, latrine or none), and use of wood for cooking show no relationship to the probability of falling ill. Part of the explanation for the water and sanitation result is the fact that these measures are less meaningful in rural settings, since few households have modern water and sanitation systems and the importance of these measures in retarding contagion is less relevant in rural areas. Moreover evidence from other countries suggests that quantity of water may be more important than its quality (WDR 1992; Esrey 1990). The lack of effect in this analysis may also be due to correlation with other independent variables, the use of inadequate proxies, or poor measurement. Similarly, the use of stoves that burn wood, which appears to be linked at least to respiratory disease shows no relationship in the analysis, perhaps because other fuels are equally or more polluting (e.g., residue). The overwhelming use of such stoves may prevent sufficient variation and/or the fact that illnesses are contracted through so many venues that the type of stove is an insufficient distinguishing factor.

The impact of health promoters on illness incidence is unclear, as shown by the results in Table 3.4. The table examines whether having a promoter(s) in the village affects the probability of falling ill. The results suggest that villages with an NGO promoter only, or with no provider, is associated with lower odds of illness as compared to villages with a MSPAS promoters. Villages for which there is no information on promoters also have significantly lower illness incidence.[15] These findings are difficult to interpret, but it certainly appears that promoters have only a minimal, if any, positive effect on health.[16]

In general, socioeconomic variables have a strong effect on illness incidence. Improvements in economic growth are essential to health improvements. Income and education are closely related, but have independent significant impacts on disease incidence. Public infrastructure enhancement and higher household incomes provide a healthier environment and more accessible health services, leading to improvements in preventing and treating illnesses. Education is essential to addressing problems in many ways, not the least because knowledge helps in preventing health risks. Improvements in education are also associated with treating health problems effectively. Finally, health services can play a role, both in prevention and treatment (World Bank, 1993).

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[14] An instrumental variable was used for expenditures per capita, and both income proxies are in logarithms.

[15] The effect of "no data available" combines villages both with and without providers in unknown proportions.

[16] Using instrumental variables for promoter deployment – to account for the possibility that they are deployed in a non-random way – did not change any of these relationships

Table 3.4 Summary Results: Odds Ratios of the Determinants of Illness

	Probability of being sick		*Probability of upper respiratory infection*	
	Model 1	*Model 2*	*Model 1*	*Model 2*
Intercept	2.37	1.38	1.02	0.69
Age Cohorts				
6-13	0.45***	0.45***	0.51***	0.51***
14-19	0.37***	0.37***	0.44***	0.44***
20-44	0.47***	0.47***	0.50***	0.50***
45-59	0.65***	0.65***	0.50***	0.50***
60+	0.75***	0.72***	0.64***	0.64***
Gender				
Female	1.21***	1.21***	1.11*	1.11*
Education				
1–3 Years	0.82**	0.83**	0.83*	0.83*
4+ Years	0.76***	0.75**	0.77**	0.87**
Education of prominent woman	1.0	1.0	1.0	1.0
Education of household head	1.14	1.15*	1.27**	1.27**
Durable goods ownership	0.92**	0.93**	0.93***	0.93***
Water, piped	1.01	1.02	1.07	1.08
Sanitation	0.89	0.94	.89	0.92
Cook with wood	1.09	1.10	1.05	1.06
Health promoter				
NGO	0.50**	–	0.74	–
MSPAS & NGO	0.81	–	0.92	–
None	0.24***	–	0.27**	–
Data Not Available	0.60***	–	0.69***	–

* Significant at 90 percent confidence level.
** Significant at 95 percent confidence level.
*** Significant at 99 percent confidence level.
Note: Logistic regressions
Source: The data is from EHPM.

Chapter IV. Health Service Access and Utilization

Issues of access and utilization are key to assessing the value and potential impact of public health care investments. Indeed, the rationale for investments in rural areas are to improve access to health services. This chapter attempts to examine the nature and extent of community access and utilization through analysis of physical proximity, knowledge of health care options, impediments to use and consumer behavior and preferences.

The National Household Survey (EHPM), the focus groups and the accompanying survey provide complementary perspectives. Community perceptions from the focus groups allow exploration of different aspects of access (quality differences, confidence in providers, and the convenience and responsiveness of those providers), and how households make judgments about options.

Physical Access to Providers

Much of the rationale for primary health care and for government investments in health care for the poor is to reach isolated, low income communities with health care services. Hence the primary concerns are physical access and distance to care. Distance to the closest public and private services is provided for 21 of the sampled communities in Table 4.1. As would be expected, typically public health posts and units are most accessible. In six of the communities, any type of care is 12 or more kilometers away, but only two (Nombre de Dios and El Socorro) must rely on a health center or hospital that are 21 and 27 kilometers, respectively, away from the village. NGO facilities are fewer, but in some cases compensate for public facilities that are farther away (San Antonio and El Socorro). Private physicians and hospitals are typically farthest away.

The most common modes of transportation for medical assistance include: on foot (with patients sometimes carried), horse or mule; on foot to catch the bus, and commercial pick-up truck. For emergencies during off-hours (between 5 p.m. and 5 a.m.) hiring a pick-up truck to transport a patient to a health center or hospital around 20 kilometers costs between c/100 and c/500 (US$12.00–60.00). In communities without electricity and with poor roads, pick-up trucks often refuse to accommodate such requests due to the risks associated with eroded roads, and the risk of being assaulted. Alternatively, families transport patients in a hammock carried by 2 or 4 men: *"In case of emergency we carry the sick in a hammock. The road is so bad that even trucks refuse to drive on it* " (San Antonio de Opico).

Lack of accessible roads was stressed by focus groups as the single biggest deterrent to seeking health care services. Private vehicles are unaffordable for most of the sampled communities. Bus service exists directly to some villages, but typically with only two round trips per day. In 18 of the communities, people walk between 30 minutes and 2 hours to a bus stop, or walk for one or two hours to the facility. In short, facilities exist but they are often difficult to reach.

Table 4.1 Physical Access – Distance to Closest Health Providers*
(approximate kilometer)

Canton	*Public health unit/post*	*Public health center/hospital*	*NGO clinic*	*Private physician/clinic*
La Hachadura	in situ	60		
Belen Guijat	in situ	12		12
San Miguel	in situ	32		
Punta Remedios	12	25	12	12
El Pinar	1	3/56[b]	2	
Potrero Sula	in situ	11[c]	in situ[a]	
San Antonio	12	3[c]	in situ	12
San Isidro Lempa	12	5[c]		
Palo Grande	3	26	2	
El Caulote		1		
Candelaria	2	25	1	1
El Pimental	2	8/37[b]	in situ[a]	
Nombre de Dios		21		21
El Tortuguero	12			
El Socorro		27	7	27
Santa Anita	5	22	2	25
San Juan del Gozo	6	8		1[c]
El Palon	3	6/26		26
San Felipe	3	15		3
El Copalio	4	35		
Las Delicas	3	12		

* Incomplete, only 18 cantons have data.
a. Family Planning NGO.
b. Health Center and Hospital distance.
c. Distance to road only.

In general there is physical access, but the extent of accessibility is defined by convenience, quality and cost, as these determine whether households can take advantage of the proximity. The next two sections review the knowledge, convenience, and cost issues.

Information about Providers

Participants in every group, both women and men, were aware what health care facilities existed, although not all had used them. Even in remote areas, awareness of health care facilities is not a problem, in part perhaps because promoters refer people to such facilities.

Due to restricted mobility, rural households only visit a facility for serious illnesses. The demand for preventive care, such as well baby care, pre/post natal care, and family planning, is confined to a small minority of people who have easy access to services and are motivated. Immunizations, in contrast, are typically delivered to the households. This pattern is consistent with behavior of most societies as households seek assistance only for a serious medical problem, and least frequently for preventive

measures like immunization. In rural El Salvador this tendency is compounded by physical barriers.

Convenience and Indirect Costs of Access

Participants in all focus groups, irrespective of age and gender, complained about the limited hours of operation of the seven MSPAS health posts and 18 health units. These schedules, along with waiting times and evaluations of overall satisfaction are shown in Table 4.2. Waiting times vary, but on average range between two and five hours for public facilities, and one to two for NGOS. Hours of operation vary as well, with MSPAS services following a set schedule and offer 24 hour service only for some hospitals and health centers. The most common comments in the women's focus groups regarding convenience can be summarized as follows:

- *"Health posts operate only twice a week. Consultation is only until noon. The doctor is not always there. Sometimes only the nurse assistant is present. Waiting time is three hours on average. Only those who arrive by 8 get a consultation."*
- *"Health units operate only 5 days a week. Although hours of operation should be until 3 or 4 p.m., consultations are not available after 1 p.m. That is not enough. Waiting time is 3.5 hours on average. Health units also lack medication."*

The focus groups with men indicate that their perceptions of health services are more general and more critical than those of women. Their issues often occur in off-hour emergencies, and their illnesses often require specialists. Therefore, they are largely concerned with time requirements, the cost of services, cost of transportation and distances traveled. Despite this different focus, health facility schedules and insufficient hours of operation were the major source of discontent. This, plus the lack of medication at most facilities, represents a high cost as men need to take 1–2 days off from work. It was stressed, however, that waiting time at NGO clinics was only 1–3 hrs. It was a general perception that services at MSPAS health posts and health units were targeted at children, and pregnant or breastfeeding women. For their own health needs, men said they sought services at the closest health center or hospital, but preferred private clinics and physicians whenever they could afford them.

Men were puzzled about specific questions regarding health facility staff. Sixty percent of men have no idea of who the staff at MSPAS facilities are, nor are they aware of what services are provided. In seven communities, men complained about the quality of services at MSPAS health units and health posts; in two others they found facilities satisfactory. The only community with a health center was satisfied with it, although access was seen as difficult due to waiting and operating hours.

Table 4.2 Schedule and Average Waiting Time

Canton	*Health facility*	*Schedule*	*Reported average waiting time (hours)*	*Overall satisfaction*[a]
La Hachadura	La Hachadura Health Unit	7am– 3pm	4–5	3
	Cara Sucia Health Unit	7am–3pm	2–3	4
	Sonsonate Hospital	open 24hrs	4–5	5
Belen Guijat	Metapan Health Center	open 24hrs		5
	Belen Guijat Health Unit	8am–4pm	2–3	3
San Miguel	San Miguel Health Unit	8am–3:30p	3–4	5
	Santa Ana Hospital	open 24hrs	3–5	5
Punta Remedios	Acajutla Health Unit	7am–3pm	3–5	1
	AGAPE Health Clinic	7:30–3:00	1	5
El Pinar	San Ignacio Health Post	8am–4pm	4	3
	La Palma Health Center	T–Th 7am–4pm	4	5
Potrero Sula	Potrero Sula Health Post	8am–12 pm	2–3	4
	Nueva Encarnacion Health Center	open 24 hr	2–3	5
San Antonio	Opico Health Unit	8am–3pm	3	3
	Arzobispado CAPS Clinic	T&F 8–12	1–2	3
San Isidro Lempa	Tacachico Health Unit	8am–4pm	3–4	2
Palo Grande	Rosario de Mora Health Unit	8am–4pm	3–5	3
	Malta Clinic	7am–3pm	2–3	5
	Los Planes Hospital	Open 24hrs	4	4
El Caulote	Suchitoto Health Center	8am–2pm	3–5	4
Candelaria	Sto. Tomas Health Unit	8am– 3pm		
	S.F. Chinameca Health Post	8am–2pm	3–4	1
	CARITAS Dispensary	8am–12pm	.5	
	Traditional Healer	W–F–S	1	2
	Santiago Texacuango Health Unit	8am–12pm	3–4	3
El Pimental	Amigos Health Post	8am–1pm	1–2	4
	San Luis Talpa Health Unit	8am–3pm	3–4	2
	Santa Clara Clinic	8am–2pm	3–4	2
	Texacuango Hospital	24hrs		
Nombre de Dios	Sensuntepeque Health Center	open 24hrs	4–5	4
El Tortuguero	Santa Clara Health Post	twice a week	.5	4
	San Ildefonso Health Post	twice a week		
El Socorro	Hermano Pedro Clinic	8am–1pm	1–2	5
	Mujer San Nicolas Clinic	8am–1pm		4
	Zacatecoluca Hospital	open 24hrs		4
Santa Anita	Mercedes Umana Health Unit	8am–4pm		4
	Guadalupe Health Center	open 24hrs		4
	Order of the Malta Convent Clinic	8am–12pm	1–2	5
San Juan del Gozo	Mendez Health Unit	8am–12pm	3–4	1
El Palon	Lolotique Health Unit	7:30a–3pm	2–3	5
	Nueva Encarnacion Health Center	open 24hrs		
San Felipe	Jocoro Health Unit	8am–3pm	2–3	2
	San Miguel Hospital	open 24hrs		
	El Divisadero	7am–12pm		
El Copalio	San Alejo Health Center	8am–4pm	4	3
Las Delicias	Sta Cruz Michapa Hospital	8am–3p.m.	2–3	5
Carolina	San Francisco Health Post	7am–3pm	1–2	5
	Carolina (El Tubo) Health Post	7am–3pm	3–4	2
	Ilobasco Hospital	24 hrs.		
Santa Rosa	Ciudad Arce Health Unit	8am–3pm	3–4	5
	Demografi Hospital	24 hrs.		
	Maternity/San Rafael Hospital	24 hrs.		

a. Range is 1–5 with 1 the worst and 5 the best.
Source: Focus Groups.

In general, participants' comments were more positive about health centers and hospitals, because of longer hours, availability of emergency service, a more adequate medication supply, staff, and specialists. If they had a choice, people would choose these facilities over health posts and health units.

- *"Health posts are good for well baby care and pre/post natal care, but not for curative care, unless it is a very mild illness."*
- *"[The health center at] La Palma is a little hospital with very good services. It is well equipped. The fee is only c/3 for consultation and sometimes medication."* (El Pinar)
- *"The post here is useless because there is no doctor or nurse, and it is only open two days a week until noon."* (Potrero Sula)

Waiting time is equally long or longer, but people know they will be treated in those facilities. Thus, poorly functioning primary care services lead to more intensive use of higher level facilities.

Women's focus group participants frequented five NGO facilities (operated by AGAPE, CAPS, CARITAS, and two by Order of Malta Convent). Their general perception is that staff (physicians and nurses) are reliable, experienced, have equipment and medication. Although they charge for a consultation and/or medication, it is worth it. Waiting time is on average 1–1/2 hrs.

- "[The clinic of Malta] *charges c/15.00, that is c/13 more than (the health unit) Rosario de Mora, but it is considered worth it because it is well equipped. Only one trip is necessary"* (Palo Grande).

In the three communities with a choice among MSPAS health posts or health units, and an NGO facility, men strongly preferred the latter.

Drug availability often appears to be a determining factor for choosing a facility. The general perception throughout the country is that health posts and health units do not have as much medication as they used to, and people are reluctant to go to facilities where there is a low probability of having adequate stocks of medication. Medication is believed to be more readily available at health centers and hospitals, at prices significantly below those at pharmacies. If drugs are not included in the consultation fee, they are dispensed from the pharmacy inside the facility at nominal costs. Most patients walk out of a health facility with at least one prescription in hand.

- *"If I have money for the bus, it is better to go to the hospital. They have medicine."*
- *"Health posts lack medication. After a three hour wait, patients receive a prescription. In the past they always got the medication for free."*

Direct Costs of Access

Direct costs of services vary quite dramatically, as evidenced by information from both the EHPM and Focus Group Survey. Table 4.3 summarizes information on costs and utilization from the rural sample of the EHPM data. Most striking is that the direct costs for private sector consultations are so much higher: 10 times higher in terms of fees and 7 times the average for medication. Patients seeking private sector options also spend on average 50 percent more in transportation costs.

Table 4.3 Average Cost and Utilization Patterns for Public and Private Providers

Cost/utilization	*Private physician Clinic/hospital*	*Public health post Clinic/hospital*
Cost (Colones per consultation)		
Transportation	c/9	c/6
Fees	c/68	c/6
Medication	c/152	c/19
TOTAL	c/229	c/31
Utilization		
Children	5.5%	26.0%
Women	10.7%	19.1%
Men	5.7%	16.9%
TOTAL[a]	7.2%	21.7%

a. Percent of all illness episodes. The remaining 71.1 percent did nothing, self treated or relied on traditional medicine.
Source: EHPM, 1994, rural subsample.

The second panel in the table shows data on utilizations: private care is sought for children in 5.5 percent of illness episodes, public care in 26 percent of episodes, and nothing, self-treatment or traditional healers in the remaining 68.5 percent of episodes.

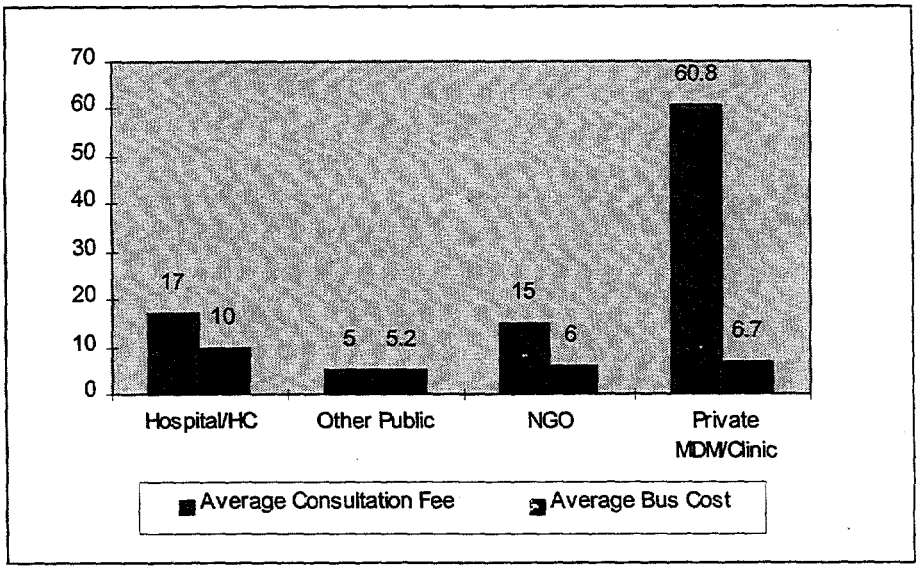
Despite the views of men, women use more private care than men do, and are more likely to seek care overall. This is contrary to what men and women claim in the focus groups. Indeed, the data indicate that women are more likely to see a private provider than men. However, the proportion of overall expenditures is roughly equivalent for men and women, suggesting that average spending is lower for women than for men. High utilization by women is consistent with the high fertility of Salvadoran women, and with patterns evident in other parts of the world. Children consume public services about five times as frequently as private, but also seek care most frequently. In, summary the demand for private services is significant, and relatively high costs do not appear to deter a large segment of low-income consumers (see next section).

Costs reported in the focus groups are consistent with this data from EHPM. Figure 4.1 summarizes the costs of medical and bus transportation by type of service. Average costs (consultation and treatment) are highest for private physicians and clinics at c/61, but vary from about c/25 to c/200 depending on the circumstances.[17] Public and

[17] Private midwives, whether certified or self taught, charge between c/10 and c/100. Often, as often found in other countries, the baby's gender determines the fee with a 30 percent hike if the baby is a boy.

NGO prices are lower and less variable, with health posts and units charging c/5 and NGO clinics an average of c/ 5 but with a high of c/30; in both cases, medication is included when available.[18] Well baby care, pre/post-natal care and immunizations are free of charge in MSPAS facilities.

Figure 4.1 Comparison of Service Costs in Focus Group Sample by Type of Provider



Public hospitals and health centers charge on average c/17, but can reach c/60 in some circumstances. For outpatient care, a c/1 per prescription is charged, and an average of c/10 per visit is charged to see a specialist. Public hospitals also reportedly reduce fees where patients indicate they cannot afford to pay. These prices and pricing schemes are not surprising given the emphasis on reaching low-income households. The availability of more expensive private services provides additional choice, particularly to those with higher incomes, and those willing to substitute expenditures for time.

Bus costs are typically a smaller cost component than consultation fees and vary less by provider. It is most expensive to reach a hospital or health center (c/10), but the difference between public and private clinics (c/5.2 and c/6.0, respectively) and private physicians (c/6.7) is only about c/1.0.

The ten focus groups with men, using services presently available and current fees as a basis, evaluated "reasonable" costs. Current fees were not considered unreasonable by the men. In most groups, consensus was reached without much discussion on the acceptability of a consultation fee of c/15 to c/25 provided that the facility would: (i) be easily accessible to their community, (ii) offer the variety of services hospitals or private

[18] NGO cost recovery strategies differ. AGAPE clinics charge c/12.00 per visit and 50 percent of the retail value of medication. CAPS does not charge for consultation, but charges a nominal fee for drugs. CARITAS charges c/10.00 per visit, including medication.

clinics have, (iii) involve waiting time that would not exceed 2 hours, (iv) keep extended hours of operation, and (v) provide the prescribed medication.

Patient Satisfaction and Impediments to Service Access

The focus group results suggest four related issues that determine consumer satisfaction with health services: convenience of the clinic hours, waiting time and off-hours availability; staff availability, and the perception of their competence and performance; availability of drugs at the health facility; and cost. Furthermore, they identified (i) inaccessibility (broadly defined) to health services and their limited hours of operation, and the lack of staff and resources (especially medication) in health facilities; and (ii) poor infrastructure, especially limited road access and lack of clean water and sanitation, as major problems.

The focus groups explored community expectations in the health sector and particularly the role of government. In general, these rural communities indicated that they expected the Ministry of Health to provide facilities, trained staff and medication at low cost, and also to monitor their health with free door-to-door service. They expect government and NGO physicians, nurses and promoters to be able to diagnose and treat their illnesses. Health education may be appreciated but it is not considered essential. These expectations, while probably unrealistic, are consistently expressed across communities.

Table 4.4 applies the EHPM rural survey to show the deterrents to use of health services, i.e., those factors reported as reasons for not seeking a service (in a given illness incidence). The table distinguishes among respiratory, gastrointestinal and other health problems. Cost poses serious impediment, with distance a far second. As shown in Chapter III and as evident here, respiratory illness is very common and households have come to recognize the illness and often either self treat or wait out the illness.

Table 4.4 Reasons for Not Seeking Treatment by Illness Type

Illness type	Poor attention	Services too far away	Unaffordable	No doctor	No confidence in provider	No medication available	Not permitted	Not necessary
Respiratory	2.51	8.03	33.95	0.42	3.26	0.75	0.75	50.33
Gastrointestinal	3.5	18.88	34.97	0.00	2.10	0.70	2.10	37.76
Other	7.25	7.55	43.81	1.81	7.25	0.30	0.91	31.12

Source: EHPM Rural Sample (1994).

EHPM also provides information on dissatisfaction and satisfaction when care was sought. Dissatisfaction with outpatient services is caused by long waiting times at MSPAS facilities (16 percent of respondents complained), and attitudes of personnel is a problem at ISSS facilities (6 percent). Satisfaction is highest for private care whether traditional or modern (97 to 99 percent).

Focus group discussions about women's general perceptions of public sector staff competence and performance can be summarized as follows:

- Public health posts and health units are not staffed adequately to respond to the demand for health services in rural areas. More trained medical staff is needed.
- Residents at health posts and health units, who are in unsupervised practical training *(Año Social)* are not as reliable as those found in health centers and hospitals. Many of these residents are regarded as inexperienced and uninterested. A common comment about them is: *"You can't get to know them well. They arrive in February, it takes the doctor and the community 3–4 months to adjust to one another. When everyone starts feeling comfortable the doctor gets transferred."*
- Nurses and assistants at two health units and one health center were sometimes faulted for favoring friends/relatives with medical assistance and/or medication. The adjective used to qualify them was *"repugnantes"*.
- There were no complaints voiced regarding malpractice or incompetence, ill treatment or abuse on the part of medical staff at health centers, hospitals, NGO facilities, or private clinics.

When men addressed the issue of quality of services, their judgment was based on perceived reliability of staff, and quantity and quality of equipment. Men favored larger and well-equipped facilities, such as MSPAS health centers and hospitals which have more specialized staff, and a larger stock of medication. They favored NGO facilities because a physician would always be available.

Furthermore, the women expressed a desire for certain kinds of services, and articulated the shortcomings in available services.

- *"The health unit is only good for minor illnesses. It would be good if it were stocked with medication so that we do not have to go to Santa Ana."* (San Miguel).
- *"Every time I go to the Health Unit in Jocoro, they give me only a prescription. I may as well go directly to the pharmacy and not waste my time waiting for a consultation."* (San Felipe).

Households have strong views about the health care options facing them and the problems each engenders. These perceptions provide an important backdrop to subsequent discussion of consumer behavior and treatment success.

Community Utilization Patterns

The utilization patterns of the community were discussed at length in the focus group and explored in the EHPM (see Table 4.3). The following Chapter V analyzes the determinants of behavior during an illness episode.

Home treatment is a popular method of treating illness and includes herbal teas, often mixed with natural or synthetic drugs, religious and cult practices, as well as the use of leftover medication from a previous illness. However, the frequency of these

practices vary according to illness, health service accessibility, and the satisfaction of individuals with available options.

Self medication is reported in approximately 50 percent of illness episodes nationwide. It occurs across all income groups but is less frequent among higher income households and in urban areas.

In every focus group, women discussed natural medication. Younger women in focus groups listened attentively as the older participants went into detail explaining how they use common herbs, fruits and vegetables, and small animals to prepare natural medication. About 50 percent of the recipes seemed to be common to all and proven effective. Some NGOs such as COSDECSAM train promoters in the preparation of remedies that are sold to patients. One important step has been the dissemination of information regarding oral rehydration. Homemade oral rehydration treatment (ORT) is universally used in El Salvador, and may be the single most important factor promoting the reduction of infant deaths due to dehydration. Making use of well-known and effective natural medicine can be essential, as is the case with simple, modern treatments like ORT.

The more accessible and effective the provision of health services, the less frequent is self-medication. Thus, self-medication is consistently higher in those areas where there are no health facilities or facilities that receive low rankings from users or promoters (see Table 4.2). In San Felipe, 86 percent of people self-medicate, and the remainder indicate that they seek private medical attention in Jocoro. The closest facility, Jocoro Health Unit, is three kilometers away by foot, and ranked 2 on a scale of 1–5. The access road is unpassable and there is no public transportation. The lowest rates of self-medication occur in Santa Rosa (23 percent) and San Isidro Lempa (20 percent). The former is a community with 4 health promoters and two accessible MSPAS facilities. The closest facility is the Cuidad de Acre Health Unit, which was rated a 5 on a scale of 1 to 5 by users. Promoters in this community (MSPAS, ASALDI, World Vision) received favorable ratings as well.

People's perception of their illness, the quality of service, the distance to the facility and the cost involved (direct and indirect) all play a role in facility preferences. The highest approval rating was given to the San Miguel Health Unit. Average waiting time is 3–4 hours, and the facility was rated a 5 by users.

Distance to provider also plays a role. Although high praise was given to Sensuntepeque Health Center, and both men and women at Nombre de Dios rated it 5, only 20 percent of patients attend this facility. The opportunity cost appears to be too high. A visit to this health center requires 2–3 days, plus transportation and room and board in Sesuntepeque. With limited transportation, people choose to stay closer to home. In sixty percent of cases, people self-medicate.

Health centers are ranked the highest (5) by both men and women. They have all the benefits of a hospital, operate seven days a week, offer a full complement of services

(specialized staff, more permanent staff, extended hours of operation during the week, and a larger stock of medication), and still charge fees that are the same as or lower than those of a health unit. When health centers are close to the community, people say they have no reason to go anywhere else. This is the case in El Caulote, where 62 percent visited the Suchitoto Health Center the last time they were ill.

Poor services at facilities also affects community perceptions and utilization. Such is the case of the Belen Guijat Health Unit, which is located in the community, but criticized by men and women for its poor schedule and lack of medication. Survey results suggest that few use the facility, as no one in the focus groups chose this health unit during the last episode of illness. In the community, 50 percent chose to self-medicate and 40 percent attended the Metapan Health Center, 12 kilometers away.

Finally, private health services are preferred where affordable. In urban areas, private health services are favored by 17.5 percent of users, but households with incomes over c/3,000 (US$420) a month rely almost exclusively on private services. In urban areas, waiting time is the single biggest complaint, with 15.8 percent of households stating this as a problem in public facilities, but only 2.7 percent indicating the same for private facilities. (EHPM, 1994).

In summary, the observed preferences and decisionmaking of the rural communities are in keeping with both economic theory and common sense. Households appear to use the services that have the highest likely return and the lowest direct and indirect costs. These general results are explored further in the next chapter.

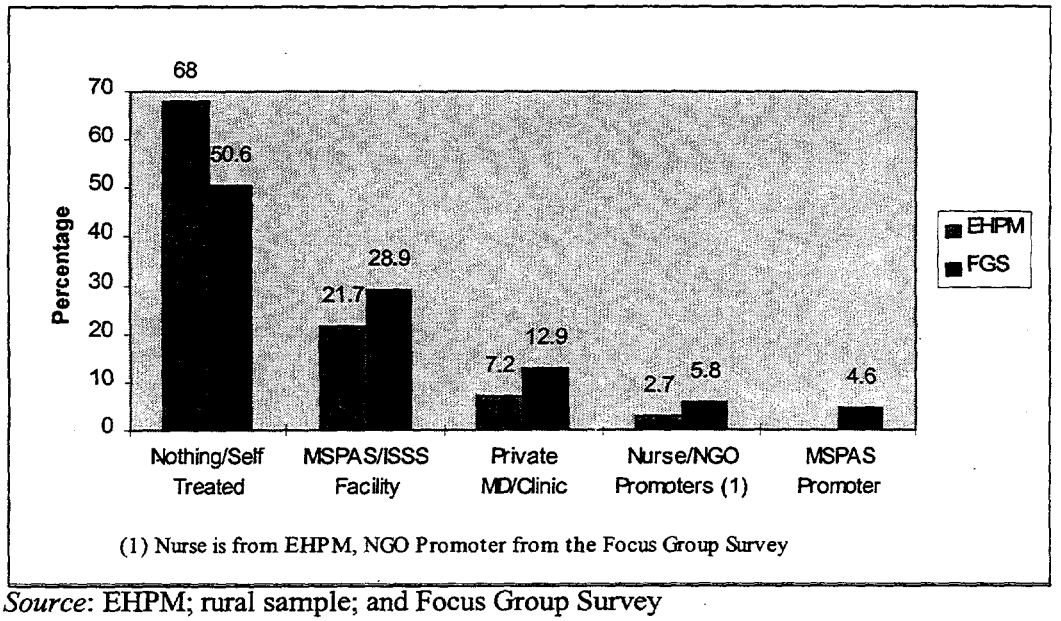
Chapter V. Patterns and Determinants Of Health Seeking Behavior

The previous chapters have reviewed the existing information on illness, access and utilization of health services based on aggregated data and information. This chapter analyzes individual behavior, its determinants and effectiveness, and explores the issue of health promoter impact in some depth.

Patterns of Health Seeking Behavior for First Treatment

The provider options in the EHPM and the Focus Group Survey (FGS) are not entirely consistent in definition. Figure 5.1 summarizes the results from the two surveys, combining categories where possible to maximize comparability. What is most striking about the findings is the large proportion of self-treatment—51 and 68 percent, respectively, for the FGS and the EHPM. This category includes traditional medicine (herbs, natural drugs and cult practices), using leftover medication from a previous illness of some member of the family, and not treating the illness at all.[19]

Figure 5.1 Pattern of First Consultation in EHPM and Focus Group Survey



Source: EHPM; rural sample; and Focus Group Survey

MSPAS health centers and hospitals were selected first by 6.6 and 4.6 percent of patients, respectively. As discussed above, health centers are popular among users, but they are typically further away than the more basic health posts and health units. Nevertheless, the perception of quantity and quality of services, and their modest fees make them attractive alternatives. Most focus group participants saw health centers (or

[19]The difference in provider options queried, sample size and time between the two surveys (1994 versus 1996) may account for some of the differences in reported self treatment.

clinics with the same services as the health center) as the ideal health service provider, and expressed their desire to have one in their community.

The number of people from the focus groups who sought care from MSPAS and NGO promoters was 3 and 5.8 percent, respectively. MSPAS promoters by design have a preventive mission and this may leave them ill equipped to treat health problems. This may be why MSPAS promoters are not commonly sought.

Although private clinics and physicians charge up to five times more than an NGO facility, and up to ten times more than a MSPAS facility (see Table 4.3), 12.9 percent of the focus group sample chose to visit a private provider the last time they were sick. This rate is low in comparison with men's and women's stated preference for private physicians in the focus groups. However, private services are not available in their communities, and are costly in terms of time, transport and service.

The reported success rate in the focus groups varies by provider type, as indicated in Table 5.1. These data from the Focus Group Survey alone, indicate an average success rate of 73 percent, with MSPAS promoters having the lowest success (57 percent), and private clinics and physicians the highest (87 percent). The remarkable result is the lack of variation outside these two extremes, as the success rate for the other providers is about 73 percent, including that for self-treatment. The latter suggests the importance of pharmacies and local shops as health service providers, and that (selective) self-treatment is convenient, inexpensive and largely successful in the experience of rural households. Moreover, these findings suggest that households sensibly evaluate their illnesses, costs and the probabilities of satisfactory outcomes when making decisions about treatment.[20]

Table 5.1 First "Consultation" for Last Illness and Reported Success Rate

Providers	*Number of patients*	*Distributions of patients (%)*	*Success rate (%)*
Self treatment	122	50.6	68
MSPAS hospital/health center	27	11.2	78
MSPAS health posts/units	36	17.7	72
MSPAS promoter	11	4.6	57
NGO promoter/clinic[a]	14	5.8	71
Private clinics/physicians	31	12.9	87
Total	241	100%	73%

a. Focus group participants did not distinguish between NGO promoters and clinics, and viewed them as part of a whole.
Source: Focus Group Survey.

Logistic regression was applied to model the probability of successful treatment, to control for the multiple factors that affect that success. Table 5.2 summarizes these results, presenting the odds ratios associated with each variable. Among the significant

[20] On the second try, self-treatment is significantly reduced from 50 percent to 3 percent. On the other hand, the choice of MSPAS health posts and health units increases to 30 percent and MSPAS hospitals to 25 percent and almost a quarter of the patients selected private clinics or physicians. Not surprisingly, promoters, both MSPAS and NGO, tend to play a minor role as the severity of an illness progresses.

variables, age is inversely related, indicating that the younger the patient the more likely treatment will be successful. If the patient has a respiratory illness, treatment is more likely to be successful. Among the various types of providers sought for treatment, only the private doctor/clinic choice has a significantly higher likelihood of successful treatment. Also, having an NGO provider in the village is significantly associated with a higher success ratio. Other factors, such as education or availability of a MSPAS promoter, have no significant effect on successful treatment.

Table 5.2 Probability of Successful Treatment: Odds Ratios

Dependent Variable: success=1; failure=0	
Variables	
Intercept	1.36
Age of Sick Person	0.75**
Education of the Informant Woman	1.02
Provider Type Sought:	
MSPAS Clinic	1.55
Private	2.93*
Others	1.80
NGO Promoter	1.86
MSPAS Promoter	1.26
Disease Type:	
Respiratory Disease	2.04*
Gastrointestinal Disorder	0.75
Presence of Promoter in Village:	
NGO Only	2.39**
Both NGO and MSPAS [a/]	1.62

* Significant at 90 percent confidence level.
** Significant at 95 percent confidence level.
a. The excluded type is MSPAS promoter only.
Source: Focus Group Survey.

These findings are consistent with the views expressed in the focus groups—that the private sector (and high-end facilities, such as public hospitals) are more reliable sources of health care. The fact that most NGO promoters are better equipped with antibiotics, other drugs and diagnostic tools, may make them more effective providers than MSPAS promoters. This could explain the significant effect of having an NGO promoter, and the lack of an impact for MSPAS workers.

Determinants of Seeking Medical Treatment

Factors that determine health services utilization could be related to the illness episode or is due to behavioral and income characteristics, as well as to the access and quality considerations discussed earlier. This issue is analyzed here using logistic regressions. Table 5.3 shows the odds ratios for the variables hypothesized to affect

treatment decisions. The first model explains whether any treatment is sought, the second explains when public care is sought given that public or private care is available.[21]

In seeking care, age has a strong, significant, and consistently negative effect. Also, women are more likely to seek care than men. The type of disease significantly affects the decision to see a medical provider; with a (self-diagnosed) respiratory or gastrointestinal problem, it is less likely that a provider will be sought.

Table 5.3 Determinants of Seeking Any Medical Care and Public Care: Odds Ratios

Dependent variable: Seeking care versus no care		*Dependent variable: Seeking public versus private care*	
Variables	*Odds ratios*	*Variables*	*Odds ratios*
Intercept	0.29**	Intercept	127.25***
Age cohort		*Age cohort*	
0 – 13	0.39***	0 – 13	1.00
14 – 19	0.34***	14 – 19	0.42*
20 – 44	0.48***	20 – 44	0.88
45 – 59	0.51***	45 – 59	0.38
60 plus	0.56***	60 plus	.43**
Gender		*Gender*	
Female	1.26**	Female	–0.75
Education: Prominent Woman		*Education: Prominent Woman*	
Educated	1.53	Educated	1.02
Information Not Available	0.96	Information not available	3.74
Income	1.33***	*Income*	0.49***
Medical cost		*Medical cost*	
Medical consultation cost	0.99	Private:	
Medication cost	1.00	Facility cost	1.00
Transportation cost	1.00	Medication cost	1.00
		Transportation cost	1.00
		Public:	
		Facility cost	0.99
		Medication cost	1.00
		Transportation cost	1.00
Type of Disease		*Type of Disease*	
Respiratory	0.38***	Respiratory	1.60*
Gastrointestinal	0.55***	Gastrointestinal	1.23

* Significant at 90 percent confidence level.
** Significant at 95 percent confidence level.
*** Significant at 99 percent confidence level.
Note: Logistic model. Model 1: probability of seeking care, Model 2: conditional upon seeking care, probability of seeking public care. Total per capita expenditure (logarithm) is indicator of income.
Source: Data is from EHPM, rural subsample 1994.

[21] Again, we report on a few models representing the important findings from many alternative formulations. Importantly, models with promoter presence in villages were tried, but in no case does promoter presence (even when instrumental for) influence the care-seeking behavior.

Higher incomes are significantly and positively related to the likelihood of seeking treatment. The education of the patient does not influence medical treatment decisions, nor does the education of the prominent woman in the household (the decisionmaker, grandmother or effective head of household). Access costs of distance, medical consultation or drugs have no effect on use of any kind of service, a result consistent with the analysis in the previous chapter.[22]

The second model attempts to explain when public care is sought, given that some care is sought. The results are much as expected: age and gender are significant for the odds that care is sought but generally not in the choice of private versus public (although the oldest group is less likely to seek private care). Education has no significant effect on the private/public choice. Income, which positively affects seeking care, negatively affects public service use, which means that private care increases as income declines. Surprisingly, even in the model for public versus private care, no significant effect is detected for the factors representing the costs of the various alternatives.

These results suggest that households are more likely to seek health care if they have higher incomes or an uncommon illness (i.e., not respiratory infection or gastrointestinal problem). The results imply that rising incomes will help families use medical care more frequently in general, and also increase the role of private care. The results on the pattern of women and children using care (not shown) are consistent with results reported earlier, and with patterns observed in other settings. It is noteworthy that households often do not seek care for common ailments. This probably means that households with some precision can identify frequent low-risk ailments. It is important to note that costs do not pose a serious deterrent to use. This is consistent with the focus group findings

Role and Importance of Health Promoters

The MSPAS and NGO promoter profiles were discussed in Chapter II. This chapter explores their performance and impact based on utilization patterns, perceptions and experiences as revealed in the Focus Group Survey, the focus groups themselves, and interviews in the community with promoters and community leaders.

A significant finding from the interviews and focus groups is the limited competition and overlap of functions among promoters. Where there are both MSPAS and NGO workers, they have divided up households to ensure single coverage. It is not clear whether all the households are covered, but each house is visited by only one promoter. Word of competition among promoters for specific areas or functions did not surface either from the promoters themselves or their communities.

A success that appears to be linked to the promoters is in immunization coverage. In every single focus group and interview, it was asserted that MSPAS, in coordination

[22] Variables for access and other costs were carefully built with a "choice set" methodology, assuming that an alternative and its costs chosen by one member in a village was a choice also open to others. Still, these variables proved insignificant in all model formulations.

with NGOs, reach the great majority of households with immunization coverage, and that the promoters accompany brigades to isolated communities. In 1995, reported immunization rates for DPT exceeded 95 percent for children under age one (PAHO, 1996), double the rate of less than a decade earlier.

In assessing the role of health promoters in influencing the decision to seek medical care, an extension of the models shown in Table 5.2 was examined. Adding the type of health provider available in the village shows that MSPAS promoters have no effect on the decision to seek care; but having both an NGO and MSPAS promoter available is associated with seeking treatment (model results not shown). But where there are NGO or MSPAS promoters, or where both MSPAS an NGO serve a given community, there is no impact on the decision to visit a *public* treatment facility.

The analysis included logistic regressions for the probability of consulting a promoter. These were based on the focus group survey, and each model was estimated on a subsample of villages for which the relevant promoter(s) is (are) available. The results are mixed, with data on the promoters and the patients able to explain very little in this decision. Two variables indicating the quality of promoters proved important: promoters with high initial training were more likely to be consulted, as were promoters who periodically visited household. There was, furthermore, indication that promoters who can dispense antibiotics were more likely to be visited. Other variables, such as village wealth, type of illness, and whether more than one promoter was available, have no significant effect on the consultation decision. Few observations and covariation resulted in weak and hard to interpret findings (see Table 5.4 for results).

Table 5.4 Probability of Consulting MSPAS or NGO Promoter When Available: Odds Ratios

Variables	*Probability of consulting any promoter*	*Probability of consulting MSPAS promoter*	*Probability of consulting NGO promoter*
Intercept	0.03**	0.001***	0.001***
Age of sick person	1.01	1.09	0.75
Education of the women	0.88	0.85	0.81
Type of Disease			
Respiratory disease	1.44	2.43	0.99
Gastrointestinal disorder	0.46		0.71
Distance of other health facility	1.04	0.96	1.05*
Home visit	2.81		0.97
Antibiotics availability	0.89	0.12**	0.88
Village wealth	0.78	0.91	1.00
Initial training	21.90**		
Current training	0.45		0.11*
Bus cost to other health facility	0.88*		1.00
Village promoter			
NGO	0.14		
BOTH	1.20		

* Significant at 90 percent confidence level.
** Significant at 95 percent confidence level.
*** Significant at 99 percent confidence level.
Source: Data from FGS.

These results give some support to the view that promoters are not frequently consulted and moreover have little impact on health seeking behavior. The general findings are in keeping with the views of the focus group participants. Indeed, the overall reaction of women to MSPAS and NGO promoters can be summarized by the comments below:

- *"[The promoter] gives talks about immunizations, hygiene, how to clean the well, cleanliness of the house, how to burn garbage, etc., but doesn't have a scale and doesn't take blood pressure or give medicine. They only refer us to clinics."* They regard the promoter as incapable of helping them. If they need assistance, they go to a health facility.
- *"We have confidence in her only in cases of minor illnesses. She has no (medical) equipment."* (Potrero Sula – CONAMUS).
- *"For us we almost don't want him [the promoter] to visit because he only comes to talk and doesn't even have any aspirin."* (Nombre de Dios).

The focus groups also discussed the contribution of MSPAS and NGO promoters. These are summarized here:

(1) Diarrhea:

- *"He does nothing but give chats, ask questions, and takes notes in a book. If a child has diarrhea, he gives him a white powder to dissolve in water [oral rehydration salts]. If someone else is sick, he provides them with a referral." (Belen Guijat – MSPAS promoter).*

(2) Prenatal care:

- *"(He) measures height and weight of the children. He has a stethoscope, and takes temperature. He checks size and weight of pregnant women. He gives medication and vitamins". (Punta Remedios – AGAPE promoter).*
- *"If you tell the promoter you are pregnant, he/she writes you a referral for the health unit." (MSPAS promoter).*
- *"The promoter does the pre-natal check-ups in her home-office. She weighs them, she measures the womb. The promoter uses the tension meter and thermometer. She also listens to the baby's heartbeat with the little thing (stethoscope). She also gives them prenatal vitamins. She performs complete check-ups." (San Isidro Lempa, ASALDI promoter).*

(3) Family planning:

- *"The promoter advises us to plan so that we do not have so many children. He tells us to go to the health unit and request a family planning method. He says he can get pills for us, or we could buy them at ADS." (MSPAS promoter).*
- *"The promoter has birth control pills at her home/office. One can buy them for one or more months." (El Caulote – PROGRESO promoter).*
- *"My husband tells me women who use birth control turn fat and ugly, or hopelessly thin."*

(4) Antibiotic treatment:

- *"It would be great if the (MSPAS) promoter carried all those things (antibiotics) because, if he/she goes to a household and the children are sick, what is a visit good for if the promoter has nothing to offer?"*
- *"Yes, of course. If he/she has them on hand, he/she can supply them. As they (antibiotics) are well known medications, there is no problem because everyone knows what they are good for." (Punta Remedios).*

Where the level of education of the sampled communities is low, people become more dependent on a promoter to assist them in taking control over their preventive health care, and they are therefore more enthusiastic about promoter efforts. Also, in inaccessible communities the promoter's visit provides a sense of security and protection to villagers. The following types of comments abound in the more isolated communities:

- *"Because we are so isolated and abandoned here, when the promoter visits us, he checks that the floor is swept, and if it is not, he complains to us."* (El Tortuguero).
- *"It's good to have the promoter as they carry the "controls" and as we forget to get the children immunized, he reminds us."* (San Antonio)

The men's focus groups were less sympathetic to health promoters, although they had less contact with them and rarely needed to rely on them. In two out of the ten cantones, there were no MSPAS promoters. In one of them, San Miguel, men were emphatic that they did not need one. In seven cantones served by MSPAS promoters, men are aware of the visits but were unaware of what the promoter did, other than educational chats. Men whose households are visited by NGO promoters (CAPS, AGAPE) are more knowledgeable of the services, especially when visits involve a fee. Most of the time men refer to the fact that MSPAS promoters earn high salaries for the work they do, but are not trained to treat patients. In two communities they stressed that promoters did not have a first aid kit. No references were made to the fact that NGO promoters also frequently earn a salary.

The derision of the communities is not lost on many of the promoters. In interviews with MSPAS promoters, they expressed their frustration with their ill-equipped situation and limited offering for their communities:

- *"We lack many things. To be able to assist people better, I would like to have several things, e.g., stethoscope, tension meter, adult scale, bronchial therapy. Also, more training in their use and necessary follow up."* (MSPAS promoter).
- *"As far as antibiotics are concerned, we have been told there may be complicated side effects, which we are not trained to deal with, which is why we cannot supply them. But we think that if we were trained more, perhaps we could. However, I know how to prescribe them because I used to work at World Vision and we distributed antibiotics."* (MSPAS promoter).

Summary

The quantitative results and the focus group findings are very consistent. People prefer private medical care, because they view it as of higher quality; successful treatment is most closely correlated with visiting a private provider. Households self treat where the likely benefits of medical treatment are outweighed by the direct and indirect costs of obtaining professional input. And for less common ailments, households more frequently seek care, and particularly private care. Women and children consult providers more frequently than men do. Some additional findings from the quantitative analysis indicates that education and income encourage the use of health services. These are not surprising, but are important issues for policy.

The consistency between the different elements of the study also applies to health promoters. In general, they are sometimes appreciated by communities and households for the efforts they make, but they are not considered an important source of medical advice or treatment. MSPAS promoters, because they have little but advice, find less support among communities than the better equipped, trained and supervised NGO promoters.

Chapter VI. Conclusions and Policy Implications

This study has examined the issue of health care access, utilization and preferences from many different perspectives. Our general findings can be summarized as follows. Illness in rural El Salvador is frequent and often unnecessary, as there are effective measures to prevent illness. Moreover, morbidity can be reduced significantly through improvements in education and income. Health service utilization patterns appear to be fairly rational and consumers are well informed. Households are aware of and have access to an array of health services from basic health workers to hospital care. They clearly weigh direct and time costs, and probabilities of success, and have clear notions of what constitutes adequate care. They self treat successfully in close to half of all episodes. This decision reflects their assessment and experience with alternative health providers and/or with access to services.

Public health centers and hospitals are used and appreciated by rural communities. In contrast, lower end public providers, such as health posts, health units, and health promoters appear to have little or no impact on illness incidence, or on the decision to seek health care. NGOs are more effective and more appreciated at the lower levels of care, as is borne out by both focus groups and quantitative analysis.

Policy Implications

A fundamental public finance question is the role of government in the provision of health care services. While the provision of basic care can be seen as a merit good—services that are underconsumed due to ignorance or inexperience—higher level care is sometimes seen as justified on the grounds of inefficient or unavailable insurance markets. The basic health services are in place in much of El Salvador, but the effectiveness of delivery is highly questionable. Indeed, given the evidence from communities, it would be worthwhile to study further the utilization of lower level care to see if it is cost effective. Its actual efficiency has not been formally evaluated, but the perceptions of inefficiency, marginal competence and inadequate complementary inputs (drugs, medical equipment and supplies) is a reality, and many of these perceptions are seen as impediments by health promoters themselves. For a system that is costly to operate, inability to find indications of effects on behavior or health outcomes is disconcerting.

The circumstances and issues in secondary care are clearly of great importance, both clinically and politically. Secondary care usually represents the unaffordable aspects of health care, and may substitute for a functioning insurance market. An assessment of the issues of secondary health services is beyond the scope of the present study, but deserves scrutiny and careful evaluation to establish a viable investment, financing, and delivery strategy for the next decade. Secondary care cannot be overlooked as a major question for public health policy.

An important issue is how health objectives can be met, particularly for the rural population and the poor. Given the marginal impact of MSPAS promoters, and the fact

that their role is to reinforce prevention, other approaches should be considered. For example, 90 percent of the population owns a radio. Radio spots, *novelas* with a message and other communication efforts could serve many of the same purposes as those intended for the MSPAS promoter "chats", in particular because their expensive mode of delivery appears to be of little effect, if any. Similarly, the lack of roads poses a serious impediment to reaching higher quality services. Given El Salvador's size, upgrading the road network would, in addition to other benefits, directly improve access to quality treatment and remove the need to provide each village with its own public health entity.

The limitations of public delivery should be addressed, both at the lower and secondary levels. It is clear (from the ineffectiveness, the views of communities, the assessments of the promoters themselves, and comparisons with NGO promoters) that MSPAS promoters, if they are to be effective, need to be better equipped and supervised, and continuous training is essential. The quantitative analysis, and the comparison of performance and technical capacity between the MSPAS and NGO promoters, suggests that subsequent training and reinforcement during supervision are important to performance. Similarly, without basic drugs and medical equipment, the promoters have nothing to offer and receive no respect in the community. Without attention to these considerations it is unclear whether the government should continue to finance the health promoters.

NGOs fair better in both the perceptions of the community and in the analysis of impact. Since there is overlap with the MSPAS providers, another option could be to contract with NGOs to provide promoter/basic clinic care in underserved areas. This would require a better definition and deployment of promoters as the link to clinics is important for promoter networks. All solutions would require a new oversight function by MSPAS. Indeed the existing network of NGOs could be evaluated and contracted on an experimental basis to determine the feasibility with a minimal of effort. Given the experience of NGOs, this should not pose a difficulty.

Even with improvements along all these lines, major challenges will persist in evaluation and provision of incentives for promoters. These challenges are related to the fact that demand factors and quality control easily are ignored in supply-driven systems, and monitoring is costly in dispersed systems. Without addressing these issues head on, other efforts likely will be fruitless.

A specific issue relates to the dispensing of antibiotics. Antibiotics are available everywhere and very likely used inappropriately. The focus groups indicated that unused, leftover antibiotics were commonly applied; antibiotics can be purchased anywhere, and are seen as fundamental in self treatment. The implied level of abuse is likely of concern. Resistant strains of bacteria flourish under these circumstances, leading to more serious health problems in the future. A key role for MSPAS is educating the public and providers on the need to use antibiotics judiciously, to consume the full cycle of antibiotic treatment when ill, and to dispose of any remaining medication. That message by radio, promoters and other providers is of considerable importance in preserving the potency of existing antibiotics. It should be a priority for

MSPAS, and could be linked to the upgrading of promoters to allow them both to dispense and to educate their patients. Whether such permission is granted or not, public education is critical.

Conclusion

The results of the study are contrary to the rhetoric and priorities of many developing countries, and at odds with important parts of common health policies in many of them. Basic health outreach appears to have a limited role in influencing behavior, wellness or effective treatment in rural El Salvador. A supply dominated mode of delivery with low-cost personnel appears to have major weaknesses in delivering results, for reasons explored above. Moreover, the preventive and curative objectives can be accomplished through alternative means. The findings suggest that the health promoter program be monitored more carefully, and alternative investments and programs designed to compensate for the limited impact of the existing program be developed. Indeed, the implications of the research deserve to be tested in policy and program terms, and to be verified accordingly.

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